No. 26.] [April, 1882.

UNIVERSITY OF MINNESOTA LIBRARY MINNEAPOLIS

MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY.

I.—CAN THERE BE A NATURAL SCIENCE OF MAN?

II.

In resuming the discussion which we began in the last number of MIND, it will be well to remove a misapprehension, arising from an ill-chosen title, which may have prevented believers in 'Anthropology' from giving an unprejudiced attention to the discussion. It is not at all intended to dispute the possibility of a valid natural science dealing with human nature in certain of its aspects. The point at issue is whether any such science can deal with the ultimate principle of knowledge and of morality in man. In the last number we were following the lead of Kant in inquiring what is necessary to constitute, what is implied in there being, a world of experience—an objective world, if by that is meant a world of ascertainable laws as distinguished from a world of unknowable 'things-in-themselves'. We have followed him also, as we believe every one must who has once faced the question, in maintaining that a single active self-conscious principle, by whatever name it be called, is necessary to constitute such a world, as the condition under which alone phenomena, *i.e.*, appearances to consciousness, can be related to each other in a single universe. This is the irrefragable truth involved in the proposition that 'the understanding makes nature'. But so soon as we have been brought to the acceptance of that proposition, Kant's leading fails us. We might be

forward, from the work thus assigned to understanding in the constitution of nature, to infer something as to the spirituality of the real world. But from any such inference Kant would at once withhold us. He would not only remind us that the work assigned to understanding is a work merely among and upon phenomena; that the nature which it constitutes is merely a unity in the relations of phenomena; and that any conclusion we arrive at in regard to 'nature' in this sense has no application to 'things-in-themselves'. He insists, further, on a distinction between the form and matter of 'nature' itself, and having assigned to its 'form' an origin in understanding, ascribes the 'matter' to an unknown but alien source in a way which seems to cancel the significance of his own declarations in regard to the intellectual principle necessary to constitute its form. We do not essentially misrepresent him in saying that by the 'form' of nature or, as he sometimes phrases it, 'natura formaliter spectata,' he means the relations by which phenomena are connected in the one world of experience: by its 'matter,' or 'natura materialiter spectata,' the mere phenomena or sensations undetermined by those relations.[1] 'Natura formaliter spectata' is the work of understanding; but 'natura materialiter spectata' is the work of unknown things-in-themselves, acting in unknown ways upon us.

Now, if the distinction, thus drawn, between the form and matter of the world of experience were necessary or even admissible, the effect of tracing those relations between phenomena, which form the laws of nature as we know it, to the action of a spiritual principle, will simply have been to bring us to a deadlock. The distinction implies that phenomena have a real nature as effects of things-in-themselves other than that which they have as related to each other in the universe of our experience: and not only so, it puts the two natures in a position towards each other of mere negation and separation, of such a kind that any correspondence between them, any dependence of one upon the other, is impossible. As effects of things-in-themselves, phenomena are supposed to have a nature of their own, but they cannot, according to Kant's doctrine, be supposed to carry any of that nature with them into experience. All the nature which they have in experience belongs to them in virtue of relations to each other which the action of the intellectual principle, expressly opposed to the action of things-in-themselves, brings about. The nature which a sensation is supposed to possess, 'materialiter spectata,' as the appearance of a thing-in-itself, must not be confused with its nature as conditioned by a particular mode of matter and motion—the nature which the

[1] *Critique of Pure Reason*, Ed. Hartenstein (1868), p. 133; Ed. Rosenkranz, II., p. 755.

man of science investigates. It is probably from this confusion that Kant's doctrine of the relation between phenomena and things-in-themselves derives any plausibility which it may have for most of his readers: but, after what has been said above, a moment's consideration will show how unwarrantable according to his principles it is. The nature of a sensation, as dependent upon any motion or configuration of molecules, is still a nature determined by its relation to other data of experience—a relation which, like every other relation within, or capable of coming within, experience, the single self-distinguishing principle, which Kant calls understanding, is needed to constitute. It is not such a nature, but one to which no experience or interrogation of experience brings us any the nearer, that we must suppose to belong to the phenomenon as an appearance of a thing-in-itself, if Kant's antithesis is to be maintained. And if phenomena, as 'materialiter spectata,' have such another nature, it will follow—not indeed that all our knowledge is an illusion in the ordinary sense of the term, for that implies a possibility of correction by true knowledge but—that there is no ground for that conviction of there being some unity and totality in things, from which the quest for knowledge proceeds. The 'cosmos of our experience,' and the order of things-in-themselves, will be two wholly unrelated worlds, of which, however, each determines the same sensations. All that determination of a sensible occurrence which can be the object of possible experience or inferred as an explanation of experience—its simple position of antecedence or sequence in time to other occurrences as well as its relation to conditions which regulate that position and determine its sensible nature—will belong to one world of which a unifying self-consciousness is the organising principle: while the very same occurrence, as an effect of things-in-themselves, will belong to another world, will be subject to a wholly different order of determinations, which may have—and indeed, in being so described, is assumed to have—some principle of unity of its own, but of which, because it is a world of things-in-themselves, the principle must be taken to be the pure negation of that which determines the world of experience. If this be so, the conception of a universe is a delusive one. Man weaves a web of his own and calls it a universe, but if the principle of this universe is neither one with, nor dependent on, that of things-in-themselves, there is in truth no universe at all, nor does there seem to be any reason why there should not be any number of such independent creations. We have asserted the unity of the world of our experience only to transfer that world to a larger chaos.

A tempting but misleading way out of the difficulty is to reduce the world of experience to dependence on that of things-

in-themselves by taking the intellectual principle, which, in the sense explained, 'makes' the world of experience, to be not, as Kant considered it, an independent thing-in-itself, but itself a product of things-in-themselves. Our readiness to confuse things-in-themselves, as just pointed out, with the material conditions of sensation, may easily bring us to put the case in this way to ourselves. Certain combinations of moving matter, we are ready to believe, by processes yet to be ascertained, issue in those living organisms which again, in reaction upon certain modes of motion, yield sensation: and the sensitive subject, under a continuance of like physical influences, somehow grows into the intellectual subject of which the action is admitted to be necessary to constitute the 'cosmos of our experience'.[1] But we have learned Kant's lesson to very little purpose if we do not understand that the terms, which in such psychogenesis are taken to stand for independent agents, are in fact names for substantiated relations between phenomena: relations to which an existence on their own account is fictitiously ascribed, but which in truth only exist for, or through the action of, the unifying and self-distinguishing spiritual subject which they are taken to account for. If this subject is to be dependent on things-in-themselves, something else must be understood by these 'things' than any subjects that we know or can know, for in the existence of such objects its action is already implied. The question then arises whether, when we have excluded from things-in-themselves every kind of qualification arising from determination by, or relation to, an intelligent subject, any meaning is left in the assertion of a dependence of this subject upon them. Does not any significant assertion of that dependence, either as a fact or even as a mere possibility, imply a removal of the things-in-themselves from the region of the purely unknowable and their qualification by an understood relation to the intelligent subject said to be dependent on them? But if this is so, and if it is impossible for such a relation, any more than any other, to exist except through the unifying action of spirit, what becomes of the independence of the things-in-themselves? Are they not being determined by a spiritual action exactly of that kind which is being alleged to depend on them, and their exclusion of which is the one point expressed by their designation as things-in-themselves?

These considerations seem to preclude us, when once we have recognised the ground of distinction between a world of experience and a world of things-in-themselves, from any attempt to overcome that absolute separation between the two worlds, which Kant's doctrine implies, by treating the organising subject of

[1] I borrow the phrase from Mr. G. H. Lewes.

the world of experience as in any sense a product of things-in-themselves. Kant himself lends no countenance to any such attempt: but on further reflection we may begin to question whether the view, which Kant himself gives, of the relation between things-in-themselves and the 'matter' of experience, or 'natura materialiter spectata'—the view out of which the whole difficulty arises—is not itself open to the same charge of inconsistency as that method of escape from its consequences which we have examined. When we say that sensations, or phenomena in respect of their mere 'matter,' are effects of things-in-themselves, we may exclude as carefully as possible all confusion of the things-in-themselves with the ascertainable material conditions, or formal causes, of feeling, but we cannot assert such a relation of cause and effect between the things and sensation without making the former a member of a relation which, as Kant himself on occasion would be ready to remind us, we have no warrant for extending beyond the world of experience, or for considering as independent of the intellectual principle of unity which is the condition of there being such a world. Causation has no meaning except as an unalterable connexion between changes in the world of our experience—an unalterableness of which the basis is the relation of that world throughout, with all its changes, to a single subject. That sensations therefore, the matter of our experience, should be connected as effects with things-in-themselves, of which all that can be said is that they belong to a world other than the world of our experience and are not relative to the subject to which it is relative, is a statement self-contradictory or at best unmeaning.

That Kant should not have seen this merely goes to show that his own doctrine, being the gradual conquest of his later years, had not obtained full possession of his mind. The antithesis between the real and the work of thought had still such command over him that, after he had himself traced the agency of thought in all that gives the world of experience a definite character, he still could not help ascribing to this world, in terms of the knowable, a relation to an unknowable opposite; though that very relation, if it existed, would according to his own showing bring the unknowable opposite within that world dependent on an intelligent subject from which it is expressly excluded.

At this point we may probably anticipate a rejoinder to some such effect as the following. It appears to be impossible to take the matter of experience to be the effect of things-in-themselves, since these things, if they are to be things-in-themselves, cannot be supposed to exist in a relation which only holds for the world of experience, as determined by an intelligent subject. But it must be equally impossible to consider it a product of

the intelligent subject, to which, when we have allowed every function that can be claimed for it in the way of uniting in a related system the manifold material of sensation, we must still deny the function of generating that material. Yet we cannot ignore sensation. We cannot reduce the world of experience to a web of relations in which nothing is related, as it would be if everything were erased from it which we cannot refer to the action of a combining intelligence. After all our protests against Dualism, then, are we not at last left with an unaccountable residuum—an essential element of the real world of experience, which we cannot trace to what we regard as the organising principle of that world, but which is as necessary to make the world what it is as that principle itself? What do we gain by excluding other ways of accounting for it, if it is finally irreducible to the only agency by which we can explain the order of the world? Does it not remain a thing-in-itself, alien and opposite to anything that we can explain as the construction of intelligence, just as much as if it were admitted to be the product of an unknowable power?

The best hope of answering these questions lies in considering further how they arise. They are due to the abstraction of the 'matter' from the 'form' of experience. This abstraction we inevitably make in reflecting on the process by which we obtain such knowledge as we have, but it deceives us when we make it a ground for supposing a like separation of elements in the world of experience. It is true indeed, according to the doctrine previously stated, that the principle which enables us to know that there is a world, and to set about learning its nature, is identical with that which is the condition of there being a world; but it is not therefore to be imagined that all the distinctions and relations, which we present to ourselves—and necessarily present to ourselves—in the process of learning to know, have counterparts in the real world. Our presentation of them, as a part of our mental history, is a fact definitely related and conditioned in the reality of the world: but the distinctions presented may exist only for us, in whom the intellectual principle realises itself under special conditions, not in the world as it is in itself or for a perfect intelligence. The distinction between the form and matter of experience is a distinction of this kind. In reflecting on the process by which we have come to know anything we find that, at any stage we may recall, it consists in a further qualification of a given material by the consideration of the material under relations hitherto unconsidered. Thus as contrasted with, and abstracted from, the further formation which upon continued observation and attention it may acquire, any perception, any piece of knowledge, may be regarded as an unformed matter. On the other hand,

when we look at what the given perception or piece of knowledge is in itself, we find that it is already formed, in more complex ways than we can disentangle, by the synthesis of less determinate data. But there is a point at which the individual's retrospective analysis of the knowledge which he finds himself to possess necessarily stops. Antecedently to any of the formative intellectual processes which he can trace, it would seem that something must have been given for those processes to begin upon. This something is taken to be feeling, pure and simple. When all accretions of form, due to the intellectual establishment of relations, have been stripped off, there seem to remain the mere sensations without which the intellectual activity would have had nothing to deal with or operate upon. These then must be in an absolute sense the matter—the matter excluding all form—of experience.

Now it is evident that the ground on which we make this statement, that mere sensations form the matter of experience, only warrants us in making it, if at all, as a statement in regard to the mental history of the individual. Even in this reference it can scarcely be accepted. There is no positive basis for it but the fact that, so far as memory goes, we always find ourselves manipulating some data of consciousness, themselves independent of any intellectual manipulation which we can remember applying to them. But on the strength of this to assume that there are such data in the history of our experience, consisting in mere sensations, antecedently to any action of the intellect, is not really an intelligible inference from the fact stated. It is an abstraction which may be put into words, but to which no real meaning can be attached. For a sensation can only form an object of experience in being determined by an intelligent subject which distinguishes it from itself and contemplates it in relation to other sensations: so that to suppose a primary datum or matter of the individual's experience, wholly void of intellectual determination, is to suppose such experience to begin with what could not belong to or be an object of experience at all. But the question we are here concerned with is not whether any such thing as mere sensation, a matter wholly unformed by intelligence, exists as a stage in the process by which the individual becomes acquainted with the world; it is the question whether there is any such element in the world of knowable facts. Has nature—the system of connected phenomena or facts related to consciousness which forms the object of experience—a reality of that kind which Kant describes as 'natura materialiter spectata'; a reality consisting of mere sensations, or sensations of which the qualities, whatever they may be, are independent of such determination as arises from the action of a unifying and self-distinguishing subject?

Or has it in any other sense a 'matter' which does not depend on a combining intelligence for being what it is, as much as does the relation between my experience of to-day and that of my previous life?

Phenomena are facts related to consciousness. Thus, when we inquire whether there is such a thing in the world of phenomena, as sensation undetermined by thought, the question may be considered in relation either to the facts, as such, or to the consciousness for which the facts exist. It may be put either thus—Among the facts that form the object of possible experience, are there sensations which do not depend on thought for being what they are? or thus—Is sensation, as unqualified by thought, an element in the consciousness which is necessary to there being such a thing as the world of phenomena?

After what has been already said, the answer to these questions need not detain us long. If it is admitted that we know of no other medium but a thinking or self-distinguishing consciousness in and through which that unification of the manifold can take place which is necessary to constitute relation, it follows that a sensation apart from thought—not determined or acted on by thought—would be an unrelated sensation, and an unrelated sensation cannot amount to a fact. Mere sensation is in truth a phrase that represents no reality. It is the result of a process of abstraction, but having got the phrase we give a confused meaning to it—we fill up the shell which our abstraction has left—by reintroducing the qualification which we assumed ourselves to have got rid of. We present the *mere* sensations to ourselves as determined by relation in a way that would be impossible in the absence of that connecting action which we assume to be absent in designating them *mere* sensations. The minimum of qualification, which we mentally ascribe to the sensation in thus speaking of it, is generally such as implies sequence and degree. A feeling not characterised either by its connexion with previous feeling or by its own intensity we must admit to be nothing at all, but at first sight we take it for granted that the character thus given to a feeling would belong to it just the same though there were no such thing as thought in the world. It certainly does not depend on ourselves—on any power which we can suppose it rests with our will to exert or withhold—whether sensations shall occur to us in this or that order of succession, with this or that degree of intensity. But the question is whether the relation of time between one sensation and another, or that relation between a sensation and other possible modes of itself which is implied in its having a degree, could exist if there were not a subject for which the several sensations, or modes of the same sensa-

tion, were equally present and equally distinguished from itself. If it is granted that these relations, which constitute the minimum determination of a sensible fact, only exist through the action of such a subject, it follows that thought is the necessary condition of the existence of sensible facts, and that *mere* sensation, in the sense supposed, is not a possible constituent in the realm of facts. Or, if the consequence be disputed, the dispute can only turn on a secondary question as to the fitness of the term 'thought' to represent a function of which the essential nature is admitted. If by thought is necessarily understood a faculty which is born and dies with each man; which is exhausted by labour and refreshed by repose; which is exhibited in the construction of chains of reasoning but not in the common ideas which make mankind and its experience one; on which the 'great thinker' may plume himself as the athlete on the strength of his muscles; then to say that the agency, which makes sensible facts what they are, can only be that of a thinking subject, is an absurd impropriety. But if it appears that a function in the way of self-consciousness is implied in the existence of relations, and therefore of determinate facts—a function identical in principle with that which enables the individual to look before and after, and which renders his experience a connected system—then it is more reasonable to modify some of our habitual notions of thought as exercised by ourselves than, on the strength of these notions, to refuse to recognise an essential identity between the subject which forms the unifying principle of the experienced world and that which, as in us, qualifies us for an experience of it. It becomes time to consider whether the characteristics of thought, even as exercised by us, are not rather to be sought in the unity of its object as presented to all men and in the continuity of all experience in regard to that object, than in the incidents of an individual life which is but for a day, or in abilities of which any man can boast that he has more than his neighbour.

Our question, then, in the first of the two forms suggested, must be answered in the negative. A fact consisting of *mere* feeling, in the sense supposed, is a contradiction, an impossibility. This does not of course mean that no being can feel which does not also think. We are not called on here to inquire whether there are really animals which feel but have not the capacity of thinking. All that the present argument would lead us to maintain would be that, so far as they feel without thinking, their feelings are not facts for them—for their consciousness. Their feelings *are* facts, but they are facts only so far as determined by relations, which exist only for a

thinking consciousness and otherwise could not exist. And in like manner that large part of our own sensitive life, which goes on without being affected by conceptions, is a series of facts with the determination of which, indeed, thought, as ours or in us, has nothing to do, but which not the less depends for its existence as a series of facts on the action of the same subject which, in another mode of its action, enables us to know them. But in saying this, it may be objected, we have already admitted that there is such a thing as a merely feeling consciousness: and, in the presence of this admission, what becomes of the denial to feeling of any separate or independent reality? The answer is that the distinction of the merely feeling consciousness is just this, that what it is really it is not consciously—that the relations by which it is really determined do not exist for it but for the thinking consciousness on which it and they alike depend for being what they are. Its very characteristics as a merely feeling consciousness depend on conditions in the universe of things by which it would not be conditioned if it were really no more than it feels itself to be; if it were not relative to, and had not its existence for, another form of consciousness which comprehends it and its conditions.

In the second of the forms in which the question before us admits of being presented—Can sensation exist as an independent element in a consciousness to which facts can appear?—it has been virtually answered in being answered in the first. To that thinking subject, whose action is the universal bond of relation that renders facts what they are, their existence and their appearance must be one and the same. Their appearance, their presence, to it is their existence. Feeling can no more be an independent element in that subject as the subject to which they appear than it can be an independent element in it as the subject through whose action they exist. It is true on the one hand, as has just been admitted, that in a great part of our lives we feel without thinking and without any qualification of our feelings by our thoughts; while yet, on the other hand, we are subjects to whom facts can appear, who are capable of conceiving a world of phenomena. But just so far as we feel without thinking, no world of phenomena exists for us. The suspension of thought in us means also the suspension of fact or reality for us. We do not cease to be facts, but facts cease to exist for our consciousness. However then we may explain the merely temporary and interrupted character of the action of thought upon feeling in us, that temporary character affords no reason why we should hesitate to deny that feeling unqualified by thought can be an element in the consciousness which is necessary to there being such a thing as a world of phenomena.

Mere feeling, then, as a matter unformed by thought, has no place in the world of facts, in the cosmos of possible experience. Any obstacle which it seemed to present to a monistic view of that world may be allowed to disappear. We may give up the assumption that it needs to be accounted for as a product of things-in-themselves; or that, if not accounted for in this way, it still remains an unaccountable opposite to thought and its work. Feeling and thought are inseparable and mutually dependent in the consciousness for which the world of experience exists, inseparable and mutually dependent in the constitution of the facts which form the object of that consciousness. Each in its full reality includes the other. It is one and the same living world of experience which, considered as the manifold object presented by a self-distinguishing subject to itself, may be called Feeling, and, considered as the subject presenting such an object to itself, may be called Thought. Neither is the product of the other. It is only when by a process of abstraction we have reduced either to something which is not itself that we can treat either as the product of anything, or apply the category of cause and effect to it at all. For that category is itself their product. Or rather, it represents one form of the activity of the consciousness which in inseparable union they constitute. The connexion between a phenomenon and its conditions is one that only obtains in and for that consciousness. No such connexion can obtain between that consciousness and anything else; which means that the consciousness itself, whether considered as feeling or considered as thought, being that by means of which everything is accounted for, does not in turn admit of being accounted for, in the sense that any 'whence' or 'why' can be assigned for it. Any constituent of the world of possible experience we can account for by exhibiting its relation to other constituents of the same world, but this is not to account for the world itself. We may and do explore the conditions under which a sentient organism is formed, and the various forms of molecular action by which particular sensations on the part of such an organism are elicited. We may ascertain uniformities in the sequence of one feeling upon another. In the life of the individual and the race we may trace regular histories of the manner in which a particular way of thinking has been affected by an earlier, and has in turn affected a later way; of the determination of certain ideas by certain emotions, and of certain emotions by certain ideas. But in all this we are connecting phenomena with phenomena within a world, not connecting the world of phenomena with anything other than itself. We are doing nothing to account for the all-uniting consciousness which alone can render these

sequences and connexions possible, for which alone they exist, and of which the action in us alone enables us to know them. We can indeed show the contradictions involved in supposing a world of phenomena to exist otherwise than in and for consciousness, and upon analysis can discern what must be the formal characteristic of a consciousness for which a system of related phenomena exists. So far we can give an account of what the world as a whole must be, and of what the spirit that constitutes it does. But just because all that we can experience is included in this one world, and all our inferences and explanations relate only to its details, neither it as a whole, nor the one consciousness which constitutes it, can be accounted for in the ordinary sense of the word. They cannot be accounted for by what they include, and being all-inclusive—at any rate so far as possible experience goes—there remains nothing else by which they can be accounted for. And this is equally true of consciousness as feeling and of consciousness as thought, for each in its reality involves the other.

We are now in a position to reconsider the restriction which Kant puts on the interpretation of his own dictum that 'understanding makes nature'. This with him means that understanding, as the unifying principle which is the source of relations, acts formatively upon feelings as upon a material given to it from an opposite source called 'things-in-themselves,' rendering them into one system of phenomena called 'nature,' which is the sole object of experience and to which all judgments as to matters of fact relate. We demur to the independent reality, or reality as determined by something else than thought, which is thus ascribed to feeling. It is not that we would claim any larger function for thought than Kant claims for understanding as separate from feeling, supposing that separation to be once admitted. It is the separation itself that is in question. We do not dispute the validity of Locke's challenge to a man by any amount of thinking to produce a single 'simple idea' to himself. We admit that mere thought can no more produce the facts of feeling, than mere feeling can generate thought. But we deny that there is really such a thing as 'mere feeling' or 'mere thought'. We hold that these phrases represent abstractions to which no reality corresponds either in the facts of the world or in the consciousness to which those facts are relative. We can attach no meaning to 'reality,' as applied to the world of phenomena, but that of existence under definite and unalterable relations, and we find that it is only for a thinking consciousness that such relations can subsist. Reality of feeling, abstracted from thought, is abstracted from the condition of its being a reality. That great part of our

sensitive life is not determined by *our* thought, that the sensitive life of innumerable beings is wholly undetermined by any thought of theirs or in them, is not in dispute: but this proves nothing as to what that sensitive life really is in nature or in the cosmos of possible experience. It has no place in nature except as determined by relations which can only exist for a thinking consciousness. For the consciousness which constitutes reality and makes the world one it exists, not in that separateness which belongs to it as an attribute of beings that think only at times or not at all, but as conditioned by a whole which thought in turn conditions. As to what that consciousness in itself or in its completeness is, we can only make negative statements. *That* there is such a consciousness is implied in the existence of the world; but *what* it is we only know through its so far acting in us as to enable us, however partially and interruptedly, to have knowledge of a world or an intelligent experience. In such knowledge or experience there is no mere thought or mere feeling. No feeling enters into it except as qualifying, and qualified by, an interrelated order of which a self-distinguishing subject forms the unifying bond. Thought has no function in it except as constantly co-ordinating ever new appearances in virtue of their presence to that one subject. And we are warranted in holding that, as a mutual independence of thought and feeling has no place in any consciousness on our part, which is capable of apprehending a world or for which a world exists, so it has none in the world-consciousness of which ours is a limited mode.

The purpose of this long discussion has been to arrive at some conclusion in regard to the relation between man and nature—a conclusion which must be arrived at before we can be sure that any theory of ethics, in the distinctive sense of the term, is other than wasted labour. If by nature we mean the object of possible experience, the connected order of knowable facts or phenomena—and this is what our men of science mean by it when they trace the natural genesis of human character—then nature implies something other than itself as the condition of its being what it is. Of that something else we are entitled to say positively that it is a self-distinguishing consciousness, because the function which it must fulfil in order to render the relations of phenomena, and with them nature, possible is one which, on however limited a scale, we ourselves exercise in the acquisition of experience, and exercise only by means of such a consciousness. We are further entitled to say of it, negatively, that the relations by which, through its action, phenomena are determined are not relations *of* it—not relations by which it is itself determined. They arise out of its presence to phenomena,

or the presence of phenomena to it, but the very condition of their thus arising is that the unifying consciousness which constitutes them should not itself be one of the objects so related. The relation of events to each other as in time implies their equal presence to a subject which is not in time. There could be no such thing as time if there were not a self-consciousness which is not in time. As little could there be a relation of objects as outside each other, or in space, if they were not equally related to a subject which they are not outside; a subject of which outsideness to anything is not a possible attribute; which by its synthetic action constitutes that relation but is not itself determined by it. The same is true of those relations which we are apt to treat as independent entities under the names matter and motion. They are relations existing for a consciousness which they do not so condition as that it should itself either move or be material.

If objection is taken to the interpretation of matter as consisting in certain relations, if its character as substance is insisted on, it remains to ask what is meant by substance. It is not denied that there are material substances, but their qualification both as substances and as material will be found to depend on relations. By a substance we mean that which is persistent throughout certain appearances. It represents that identical element throughout the appearances, that permanent element throughout the times of their appearance, in virtue of which they are not merely so many different appearances, but connected changes. A material substance is that which remains the same with itself in respect of some of the qualities which we include in our definition of matter—qualities all consisting in some kind of relation—while in other respects it changes. Its character as a substance depends on that relation of appearances to each other in a single order which renders them changes. It is not that first there is a substance and that then certain changes of it ensue. The substance is the implication of the changes, and has no existence otherwise. Apart from the changes no substance, any more than apart from effects a cause. If we choose to say then that matter exists as a substance, we merely substitute for the designation of it as consisting in relations a designation of it as a certain correlatum of a certain kind of relation. Its existence as a substance depends on the action of the same self-consciousness upon which the connexion of phenomena by means of that relation depends. And the subject, of which the action is implied in the connexion of phenomena in one system of nature by means of this correlatum of change, is one that can itself be as little identified with that correlatum—with any kind of substance—as with the change to

which substance is relative. It has already been pointed out that a consciousness, to which events are to appear as changes, cannot itself consist in those events. Its self-distinction from them all is necessary to its holding them all together as related to each other in the way of change. And for the same reason that connexion of all phenomena as changes of one world, which is implied in the unity of intelligent experience, cannot be the work of anything which is the substance qualified by those changes. Its self-distinction from them, which is the condition of their appearance to it under this relation of change, is incompatible with its being so qualified. Even if we allow it to be possible that a subject, which connects certain appearances as changes, should itself be qualified by—should be the substance persistent in—certain other changes, it is plainly impossible that a subject which so connects all the appearances of nature should be related in the way of substance to any or all of them.

We may express the conclusion to which we are thus brought by saying that nature in its reality, or in order to be what it is, implies a principle which is not natural. By calling the principle not natural we mean that it is neither included among the phenomena which through its presence to them form a nature, nor consists in their series, nor is itself determined by any of the relations which it constitutes among them. In saying more than this of it we must be careful not to fall into confusion. We are most safe in calling it spiritual because, for reasons given, we are warranted in thinking of it as a self-distinguishing consciousness. In calling it supernatural we run the risk of misleading and being misled, for we suggest a relation between it and nature of a kind which has really no place except *within* nature, as a relation of phenomenon to phenomenon. We convey the notion that it is above or beyond or before nature, that it is a cause of which nature is the effect, a substance of which the changing modes constitute nature; while in truth all the relations so expressed are relations which, indeed, but for the non-natural self-conscious subject would not exist, but which are not predicable of it. If we employ language about it in which, strictly taken, they are implied, it must only be on a clear understanding of its metaphorical character. On the other hand, there is no imperative reason why we should limit 'nature' to the restricted sense in which we have been supposing it to be used, if only the same sense can be covered by another term. If we like, we may employ the term 'nature' to represent the one whole which includes both the system of related phenomena and the principle, other than itself, which that system implies. But in that case, if we would avoid confusion,

we must find some other term than nature to represent the system of phenomena as such, or as considered without inclusion of the spiritual principle which it implies, and some other term than 'natural' to represent that which this system contains. We are pretty sure, however, to fail in this, and 'nature' in consequence becomes a term that is played fast and loose with in philosophical writing. It is spoken of as an independent agent: a certain completeness and self-containedness are ascribed to it: and to this there is no objection so long as we understand it to include the spiritual principle, neither in time nor in space, immaterial and immovable, eternally one with itself, which is necessary to the possibility of a world of phenomena. But it is otherwise if 'nature' is at the same time thought of, as it almost inevitably is, under attributes only applicable to the world of phenomena, and thus as excluding the spiritual principle which that world indeed implies but implies as other than itself. In that case, to ascribe independence or self-containedness to it—if for a moment the use of theological language may be allowed which it is generally desirable to avoid—is to deify nature while we cancel its title to deification. It is to speak of nature without God in a manner only appropriate to nature as it is in God. Or—to employ language less liable to misleading associations—it is to involve ourselves in perpetual confusion by seeking for a completeness in the world of phenomena, the world existing under conditions of space and time, which just because it exists under those conditions is not to be found there. The result of the confusion will generally be that, being unable to discover any perfection or totality or independent agency among the matters of fact which we know, and having ignored the implication by those facts of a spiritual principle other than themselves, we come to assume that no perfect or self-determined being exists at all or at any rate in any relation to us.

This brings us to the question which lies at the root of ethical inquiry. In what relation do we ourselves stand to the one self-distinguishing subject other than nature, which we find to be implied in nature? To a certain extent an answer to this question has been involved in the considerations which have led to the conviction of there being such a subject. That if we were merely phenomena among phenomena we could not have knowledge of a world of phenomena appears from analysis of the conditions of an intelligent experience. Our experience, we have seen, has two characteristics, of which neither admits of being reduced to or explained by the other. On the one hand it is an order of events in time, consisting in modifications of our sensibility. On the other hand it is a consciousness of those

events—a consciousness of them as a related series, and as determined in their relations to each other by relation to something else, which is from the first conceived as other than the modifications of our sensibility, and which with growing knowledge comes to be conceived as involving relations between objects that are not events at all and between events that preceded or lie beyond the range of sentient life. But, as has been further pointed out, a consciousness of related events, as related, cannot consist in those events. The modifications of our sensibility cannot, as successive events, make up our consciousness of them. *Within* the consciousness that they are related in the way of before and after there is no before and after. There is no such relation between components of the consciousness as there is between the events of which it is the consciousness. They form a process in time. If it were a process in time, it would not be a consciousness of them as forming such a process.

Thus that man is not merely a phenomenon or succession of phenomena, that he does not consist in a series of natural events, is implied in the fact that phenomena appear to him as they do, that for him or for his consciousness there is such a thing as nature. There are certain current phrases of modern psychology, which no doubt have their warrant in facts to be considered presently, but which, as commonly used, are apt to blind us to this essential characteristic of the position in which we stand towards the world we know. We use the term "phenomena of consciousness" as if it covered the whole range of knowledge and morality—all our thought about the world, all our perceptions and conceptions of objects, all the ideas which we seek to realise in action. We speak of consciousness universally, without qualification or distinction, as a succession of states: and the figure of the stream is the accepted one for expressing the nature of our spiritual life. Now it would be idle to deny that there is an appropriateness in a way of speaking which none of us can avoid, but it is important to call attention to that kind of activity undoubtedly exercised by us, implied in all distinctively intelligent or moral experience, to which it is wholly inappropriate. If we reflect on what is contained in our knowledge, or in any conception or perception contributory to it, we shall see that the relation in which its constituents stand to each other is essentially different from the relation between stages of the process by which the knowledge or perception is arrived at. The figure of the stream may be applicable to the latter, though the more we think of it the less we shall find it so, but it is quite inapplicable to the former. Successive states of consciousness may be represented as waves of which one is for ever taking the place of the other, but such successive states

cannot make a knowledge even of the most elementary sort. Knowledge is of related facts, and it is essential to every act of knowledge that the related facts should be present together in consciousness. Between the apprehensions of those facts, so far as they make up a certain piece of knowledge, there is no succession. I may have apprehended some of them, no doubt, before I apprehend the rest; or, after having apprehended the latter, my consciousness may lose its hold on some apprehended before. In this sense different states of knowledge succeed each other in the individual, but not so the manifold constituents of that which in any act of knowledge is present to his mind as the object known; not so the determinations of consciousness in which those constituents are presented and which make up the complex act of knowledge. For a known object, as known, is a related whole, of which, as of every such whole, the members are necessarily present together; and the acts of consciousness in which the several members are apprehended, as forming a knowledge, are a many in one. None is before or after another. This is equally the case whether the knowledge is of successive events or of the 'uniformities' which are said to constitute a law of nature. For, as we have previously had occasion to point out, between the constituents of a knowledge of succession there can be no succession: so long as certain events are *contemplated* as successive, no one of them is an object to consciousness before or after another.

For this reason no knowledge, nor any mental act involved in knowledge, can properly be called a 'phenomenon of consciousness'. It may be *of* phenomena; if the knowledge is of events, it is so. The attainment of the knowledge, again, as an occurrence in the individual's history, a transition from one state of consciousness to another, may properly be called a phenomenon; but not so the consciousness itself of relations or related facts—not so the relations and related facts present to consciousness—in which the knowledge consists. For a phenomenon is a sensible event, related in the way of antecedence and consequence to other sensible events, but the consciousness which constitutes a knowledge or—if we may be allowed the use of a word which, though unfamiliar in this connexion, avoids some ambiguity—the content of such consciousness is not an event so related nor made up of such events. We cannot point to any other events, as we can in the case of a phenomenon proper, from antecedence or consequence to which it takes its character as an event. As an instance, let us take a man's knowledge of a proposition in Euclid. This means a relation in his consciousness between certain parts of a figure, determined by the relation of those parts to other parts.

The knowledge is made up of those relations as in consciousness. Now it is obvious that there is no lapse of time, however minute, no antecedence or consequence, between the constituent relations of the consciousness so composed, or between the complex formed by them and anything else. To call such knowing consciousness a phenomenon, in the ordinary meaning of a sensible event, is a confusion between it and the process of arriving at or losing it. That in the learning or forgetting a proposition of Euclid, as in the acquisition or loss of any other piece of knowledge, a series of events takes place, is plain enough; and such events may legitimately be called 'phenomena of consciousness'. But it must be noticed that when these events of the mental history come to be reviewed in intelligent memory or experience—when we know them as the connected facts of a history—their existence as in consciousness is no longer that of events. They do not succeed each other in time, but are present in the unity of relation, as much as are the parts of a geometrical figure which has been apprehended by, or taken into, an intelligent consciousness.

The discrepancy here pointed out, between the reality of consciousness as exhibited in knowledge and anything that can properly be called phenomena or successive states of consciousness, would be more generally acknowledged but for two reasons. One of these is the ambiguity attending all our terms expressive of mental activity—knowledge, conception, perception, &c.—which may denote events in our mental history, the passing into certain states of consciousness, as well as that of which in those states we are conscious—the content and object of consciousness. At the same time—and this is the second of the reasons referred to—this content or object is looked upon as existing quite otherwise than in or for consciousness; as independent of it, though from time to time affecting it in a certain way and producing a certain state of consciousness. Hence it is only the successive changes in our apprehensive attitude towards the objects of our knowledge and experience that are commonly put to the account of consciousness. Its nature is not taken to be exhibited in the structure of those objects any more than it would be if, instead of being objects known and experienced, they were 'things-in-themselves'. By perception is understood a modification of our sensibility in which some present external object is revealed to us. Conception we regard equally as an *occurrence* in consciousness, and though we suppose it to take place in the absence of any object at the time affecting the senses, we practically separate in our thoughts the conceived content or object from the conception, and imagine it vaguely as residing elsewhere than in consciousness. We thus avoid

the necessity of facing the question how an object determined by relations can have its being in a consciousness which consists of a series of occurrences. Even 'knowledge,' though we often mean by it a system of known facts or laws, is apt to lose this sense when we speak of it as a form of consciousness. It then becomes merely the mental event of arriving at an apprehension of related facts. It does not represent the relation of the facts in consciousness. That there must be such a relation of them in consciousness and that a consciousness consisting of events cannot contain such a relation, is a conclusion which we avoid by eviscerating knowledge of its content and transferring this content from consciousness to "external things".

Even those who recognise the difficulty of extruding the object conceived or known—an object constituted by relations—from the consciousness which conceives or knows, and in consequence of describing conception and knowledge as mental events or phenomena, will be apt to ignore the same difficulty in regard to perception. The externality of the perceived object to consciousness seems to be taken for granted even by those who would be quite ready to tell us that the 'things' which we talk of conceiving are but 'nominal essences'. This arises from the connexion of perception with sensation and from the real explicability of sensation by external impact. It is admitted on all hands that there can be no perception without (in Locke's phraseology) 'actual present sensation'. The difference between a perception of the moon and any mere conception of it is that, when it is perceived, although it is only in virtue of some conception of relations that it is perceived as a qualified object, there is necessarily some present sensation which those relations are conceived as determining. From this necessary presence of sensation in the act of perception, there easily arises a confusion between the perceived object and the exciting cause of sensation, which again leads to an extrusion of the perceived object from the consciousness in which perception consists, and to the view of it as an external something to which perception is related as an occurrence to its cause. A little reflection, however, will show us that the exciting cause—the stimulant—of the sensation involved in a perception is never the object perceived in a perception. It is necessary to a perception of colour that there should be a sensation arising out of a stimulus of the optic nerve by a particular vibration of ether. That vibration, however—the external exciting cause of the sensation—is not the object perceived in the perception of the colour. That object, indeed, will not be the same for every percipient. It will vary according to the extent of his knowledge and to the degree of attention aroused in him in the

particular case. The perception may be no more than consciousness of the fact that a particular colour is presented to him—a fact to be aware of which is already to be aware of a certain rudimentary relation—or it may be a consciousness of various relations by which this fact is determined. And the relations thus apprehended in the perception may vary again from those by which the colour is connected with accompanying appearances in superficial experience to those less obvious ones which science has ascertained. It may thus come to include a knowledge that the sensation of light arises out of a certain relation between vibrations of ether and the optic nerve. If the perception is that of a man of science observing light or colour for scientific purposes, it probably does so. Such knowledge is present to his mind in the perception. But it is a mere confusion to imagine that in this or any other form of such a perception the vibration of ether enters into the object perceived —into the content of the perception—in the same sense in which it acts as the exciting cause of the sensation, or to suppose that this object or content is external to the percipient consciousness as the stimulant matter is to the sentient organism. The sentient organism to which the vibratory ether may be considered external is not consciousness, either as exercised in perception or in any other way, any more than the vibratory ether, as external, is the object perceived. Strictly speaking, it is not a vibratory ether but the fact consisting in the relation between this and the optic nerve—this fact as existing for consciousness—that enters into or determines the perceived object as the scientific man perceives it. This fact, as forming part of the content of the perception, is wholly within consciousness: or, to speak more accurately, the opposition of without and within has no sort of application to it. A *within* implies a *without*, and we are not entitled to say that anything is without or outside consciousness, for externality, being a relation which, like any other relation, exists only in the medium of consciousness—only between certain objects as they are for consciousness —cannot be a relation between consciousness and anything else. An affection of the sentient organism by matter external to it is the condition of our experiencing the sort of consciousness called perception; a relation of externality between objects is often part of that which is perceived; but in no case is there such a relation, any more than a relation of before and after, between the object perceived and the consciousness of it, or between constituents of that consciousness.

If having got rid of the confusion between the stimulant of sensation and the perceived object, we examine the constituents of any perceived object—not as a 'thing-in-itself,' or as we

may vainly try to imagine it to be apart from our perception, but as it actually is perceived—we shall find alike that it is only for consciousness that they can exist, and that the consciousness for which they thus exist cannot be merely a series of phenomena or a succession of states. For a justification of this statement we may appeal to the account given of perception by the accepted representatives of empirical psychology. "Our perception of an animal or a flower," says Mr. Lewes, "is the synthesis of all the sensations we have had of the object in relation to our several senses."[1] This object itself, he tells us, is a "group of sensibles," which corresponds with Mr. Mill's account of it as a combination of "permanent possibilities of sensation". Such language is no doubt susceptible of a double interpretation, and it is only upon one of the two possible interpretations that it justifies the conclusion we shall draw from it. It is true also that this interpretation is not sanctioned by the writers mentioned, who seem not to distinguish the two interpretations, and avail themselves sometimes of the one, sometimes of the other. It is the only interpretation of the definition, however, that is really suitable to it as a definition of Perception.

What exactly is it that is combined in the synthesis spoken of? Is it a synthesis of feelings as caused by the action of external irritants on the nervous system, or is it a synthesis of known and remembered facts that such feelings have occurred under certain conditions and relations? The two kinds of synthesis are perfectly distinct, and though the former may be presupposed in perception, it is the latter alone which constitutes it in the distinctive sense. It is true no doubt that an excitement of sensation by some present irritant may revive in a fainter degree feelings that have been previously associated with this sensation. But such a revival does not constitute a perception. It cannot result in a synthesis of the feelings as *feelings of an object*, or in the apprehension of a sensible fact recognised as a symbol of many other related facts of which there would be experience if certain conditions on the part of a sentient subject were fulfilled; in other words, as a symbol of possibilities of sensation. If it were only thus that past feelings are reinstated, they could not properly be said to be combined in an object or in consciousness of an object at all, nor would their reinstatement be in any sense an inference, such as Mr. Lewes rightly holds to be involved in all perception.[2] They could only be combined either in the way of producing and giving place to a further feeling, as little a consciousness of fact or object as any

[1] *Problems of Life and Mind*, I., 191. [2] *Ibid.*, I. 257.

of them, or in the sense that their effects are accumulated in the nervous organism so as to modify its reactions upon stimulus. Anything more than this—any combination of the data of feeling as qualities of an object, or as facts related to a certain sensation which the recurrence of that sensation may recall to us—implies the action of a subject which thinks of its feelings, which distinguishes them from itself and can thus present them to itself as facts. Such action is as necessary to the original presentation of all that is recalled in perception as to the incorporation of what is recalled in the total fact perceived. As we have seen, no feeling as such or as merely felt enters into the perceived object—not even the present sensation which is admitted to be a necessary condition of perception. It is not the sensation, but the fact presented by the self-distinguishing subject to itself that such a sensation is here and now occurring—occurring under certain relations to other experience—it is this that is the nucleus on which the recalled experience gathers, suggesting other possibilities of sensation, not themselves 'actual present sensations,' but no less present as facts than the fact that the given sensation is here and now being felt. The knowledge of such possibilities of sensation is doubtless in every case founded on actual sensation experienced in the past, but on this as on an observed fact determined by relation to other like facts through the equal presence of all to a thinking subject. Except to an intelligence which has thus observed sensations as related facts, there can be no suggestion upon the recurrence of one of them that others are possible upon certain conditions being fulfilled. The revival of the past sensations themselves with whatever intensity is no such suggestion. It may be that the excitement of sensation by an external stimulant, which is the occasion of perception, is always followed by a revival with some less intensity of the sensations known to be possible as accompaniments of the given sensation; but the knowledge of their possibility—the apprehension of the relation between their several possibilities as facts and the fact of the given sensation occurring—this, the essential thing in perception, is as different from the revival of the sensations themselves or their images as is the given sensation from the presentation of its occurrence as a fact. And on this difference depends the susceptibility of combination in a perceived object, of presentation as a many in one, which belongs to known possibilities of sensation, to known facts that certain feelings would occur under certain conditions, in distinction from feelings as felt. Manifold feelings may combine, as we have seen, in one result, but in that one result their multiplicity as feelings is lost. The constituents of a perceived

object, on the contrary, whether we consider them qualities or related facts, survive in their multiplicity at the same time that they constitute a single object. The condition of their doing so is the self-distinction of the thinking subject from the data of sensation, which it at once presents to itself in their severalty as facts and unites as *related* facts in virtue of its equal presence to them all.

It thus appears that the common objects of experience—not those 'things in general' which are sometimes supposed to be the object of conception, but the particular things we perceive, this flower, this apple, this dog—in the only sense in which they are objects to us or are perceived at all, have their being only for, and result from the action of, a self-distinguishing consciousness. As perceived, they consist in certain groups of facts, which again consist in possibilities of sensation, known to be related in certain ways to each other and to some given fact of sensation. The extent of the gronp in the case of each perception, and the particular mode in which the constituent facts are related, depend on the experience and training of the percipient, as well as on the direction of his mind at the time of the perception. In every case the relations by which the given sensation is determined in the apprehension of the percipient are but a minute part of those by which it is really determined. The object which the most practised botanist perceives in his observation of a flower is by no means adequate to the real nature of the flower. That real nature, indeed, if our previous conclusions have been true, must consist in relations of which consciousness is the medium or sustainer, though not consciousness as it is in the botanist. It is not, however, with the real nature of the flower, but with its nature as perceived—a fragment of the real nature—that we are here concerned; and it is relations of which the percipient consciousness is the sustainer, which exist only through its action, that make the object, as in each case the percipient perceives it, what it is to him. Facts related to those of which the percipient is aware in the object, but not yet known to him, can only be held to belong to the perceived object potentially or in some anticipatory sense, in so far as upon a certain development of intelligence, in a direction which it does not rest with the will of the individual to follow or no, they will become incorporated with it. But they become so incorporated with it only through the same continued action of a combining self-consciousness upon data of sensation through which this object, as the percipient already perceives it, has come to be there for him.

Common sense is apt to repel such statements as these because they are taken to imply that we can perceive what we

like; that the things we see are fictions of our own, not determined by any natural or necessary order. But in truth it implies nothing of the sort, unless it is supposed that our whole consciousness is a fiction of our own, of which it rests with ourselves to make what we please. Objects do not cease to be "objective," facts do not cease to be unalterable, because we find that a consciousness which we cannot alter or escape from, beyond which we cannot place ourselves, *for* which many things indeed are external to each other but *to* which nothing can be external, is the medium through which they exist for us, or because we can analyse in some elementary way what it must have done in order to their thus being there for us. It is not the conception of fact but the conception of the consciousness for which facts exist that is affected by such analysis. So long as consciousness is thought to have nothing to do with the constitution of the facts of which we are conscious, it is possible to look upon it merely as a succession of events or phenomena "of the inner sense". The question how these inner events or successive phenomena come to perform a synthesis of themselves into objects is not raised, because no such work of synthesis is thought to be required of consciousness at all. The objects we perceive are supposed to be there for us independently of any action of our minds: we have but passively to let their appearances follow each other over the mental mirror. While this view is retained, the succession of such appearances and of the mental reactions upon them—reactions gradually modified through accumulated effects of the appearances—may fairly be taken to constitute our spiritual being. But it is otherwise when we have recognised the truth that a sensation excited by an external irritant is not a perception of the irritant or (by itself) of anything at all: that every object we perceive is a congeries of related facts, of which the simplest component, no less than the composite whole, requires in order to its presentation the action of a principle of consciousness, not itself subject to conditions of time, upon successive appearances, such action as may hold the appearances together, without fusion, in an apprehended fact. It then becomes clear that there is a function of consciousness as exercised in the most rudimentary experience, in the simplest perception of sensible things or of the appearances of objects, which is incompatible with the definition of consciousness as any sort of succession of any sort of phenomena. Something else than a succession of phenomena is seen to be as necessary in the consciousness that perceives facts as it is necessary to the possibility of the world of facts itself.

T. H. GREEN.

(To be continued.)

II.—ON SOME HEGELISMS.

We are just now witnessing a singular phenomenon in British and American philosophy. Hegelism, so entirely defunct on its native soil that I believe but a single young disciple of the school is to be counted among the privat-docents and younger professors of Germany, and whose older champions are all passing off the stage, has found among us so zealous and able a set of propagandists that to-day it may really be reckoned one of the most potent influences of the time in the higher walks of thought. Not only in heavier works by professors, but in magazine literature, anonymous book-reviews and the like, we cross the trail of its path. In what was lately his own *Journal of Mental Science*, we are confronted by the severest of hegelian reviews of Dr. Maudsley's book on the Mind, and if perchance we essay to do some small bit of psychological detail-work for ourselves, it is lucky if some one does not trip us up at every step by reminding us that we forget to do homage to the Transcendental Ego which is presupposed in all the words we use. Although the movement, so far as it has expressed itself in print, is critical rather than constructive, and although the transcendental-ego-business is a good deal like interrupting a geographer at his work by telling him every five minutes that he forgets to talk about Space, which is nevertheless presupposed in all the distances and latitudes and longitudes he is discussing, there can still be no doubt that, as a movement of reaction against the traditional British empiricism, the hegelian influence represents expansion and freedom, and is doing service of a certain kind.

Such service, however, ought not to make us blindly indulgent. Hegel's philosophy mingles mountain-loads of corruption with its scanty merits, and must, now that it has become quasi-official, make ready to defend itself as well as to attack others. It is with no hope of converting independent thinkers, but rather with the sole aspiration of showing some chance youthful disciple that there *is* another point of view in philosophy that I fire this skirmisher's shot, which may, I hope, soon be followed by somebody else's heavier musketry.

The point of view I have in mind will become clearer if I begin with a few preparatory remarks on the motives and difficulties of philosophising in general.

To show that the real order is identical with the ideal may roughly be set down as the main-spring of philosophic activity;

not necessarily ideal in every way, but always ideal in some way. The atomic and mechanical conception of the world is as ideal from the point of view of some of our faculties as the teleological one is from the point of view of others. In the realm of every ideal we can begin anywhere and roam over the field, each term passing us to its neighbour, each member calling for the next, and our reason rejoicing in its glad activity. Where the parts of a conception seem thus to belong together by inward kinship, where the whole is defined in a way congruous with our powers of reaction, to see is to approve and to understand.

Much of the real seems at the first blush to follow a different law. The parts seem, as has been said, to be shot out of a pistol at us. Each asserts itself as a simple brute fact, uncalled for by the rest, which, so far as we can see, might even make a better system without it. Arbitrary, foreign, jolting, discontinuous—are the adjectives by which we are tempted to describe it. And yet from out the bosom of it a partial ideality constantly arises which keeps alive our aspiration that the whole may some day be construed in ideal form. Not only do the materials lend themselves under certain circumstances to æsthetic manipulation, but underlying their worst disjointedness are three great continua in which for each of us reason's ideal is actually reached. I mean the continua of memory or personal consciousness, of time and of space. In these great matrices of all we know, we are absolutely at home. The things we meet are many and yet are one; each is itself and yet all belong together; continuity reigns, yet individuality is not lost.

Consider, for example, space. It is a unit. No force can in any way break, wound, or tear it. It has no joints between which you can pass your amputating knife, for it penetrates the knife and is not split. Try to make a hole in space by annihilating an inch of it. To make a hole you must drive something else through. But what can you drive through space except what is itself spatial?

But notwithstanding it is this very paragon of unity, space in its parts contains an infinite variety, and the unity and the variety do not contradict each other, for they obtain in different respects. The one is the whole, the many are the parts. Each part is one again, but only one fraction, and part lies beside part in absolute nextness, the very picture of peace and non-contradiction. It is true that the space between two points both unites and divides them, just as the bar of a dumb-bell both unites and divides the two balls. But the union and the division are not *secundum idem:* it divides them by keeping them out of the space between, it unites them by keeping them

out of the space beyond; so the double function presents no inconsistency. Self-contradiction in space could only ensue if one part tried to oust another from its position, but the notion of such an absurdity vanishes in the framing, and cannot stay to vex the mind.[1] Beyond the parts we see or think at any given time extend farther parts; but the beyond is homogeneous with what is embraced and follows the same law; so that no surprises, no foreignness can ever emerge from space's womb.

Thus with space our intelligence is absolutely intimate; it is rationality and transparency incarnate. The same may be said of the ego and of time. But, if for simplicity's sake we ignore them, we may truly say that when we desiderate rational knowledge of the world the standard set by our knowledge of space is what governs our desire.[2] Cannot the breaks, the jolts, the margin of foreignness, be exorcised from other things and leave them unitary like the space they fill? Could this be done, the philosophic kingdom of heaven would be at hand.

But the moment we turn to the material qualities of being, we find the continuity ruptured on every side. A fearful jolting begins. Even if we simplify the world by reducing it to its mechanical bare poles, atoms and their motions, the discontinuity is bad enough. The laws of clash, the effects of distance upon attraction and repulsion, all seem arbitrary collocations of data. The atoms themselves are so many independent facts, the existence of any one of which in no wise seems to involve the existence of the rest. We have not

[1] The seeming contradiction between the infinitude of space and the fact that it is all finished and given and there, can be got over in more than one way. The simplest way is by idealism, which distinguishes between space as actual and space as potential. For idealism, space only exists so far as it is represented; but all actually represented spaces are finite; it is only possibly-representable spaces that are infinite.

[2] Not only for simplicity's sake do we select Space as the paragon of a rationalising continuum. Space determines the relations of the items that enter it, in a far more intricate way than does Time; in a far more fixed way than does the Ego. By this last clause I mean that, if things are in space at all, they must conform to geometry; whilst the being in an Ego at all need not make them conform to logic or any other manner of rationality. Under the sheltering wings of a Self the matter of unreason can lodge itself as safely as any other kind of content. One cannot but respect the devoutness of the Ego-worship of some of our English-writing Hegelians. But at the same time one cannot help fearing lest the monotonous contemplation of so barren a principle as that of the Pure Formal Self, (which, be it never so essential a condition of the existence of a world of organised experience at all, must notwithstanding take its own *character* from, not give the character to, the separate empirical data over which its mantle is cast), one cannot but fear, I say, lest the religion of the Transcendental Ego should, like all religions of the "one thing needful," end by sterilising and occluding the minds of its believers.

banished discontinuity, we have only made it finer-grained. And to get even that degree of rationality into the universe we have had to butcher a great part of its contents. The secondary qualities we stripped off from the reality and swept into the dust-bin labelled "subjective illusion," still *as such* are facts, and must themselves be rationalised in some way.

But when we deal with facts believed to be purely subjective, we are farther than ever from the goal. We have not now the refuge of distinguishing between the "reality" and its appearances. Facts of thought being the only facts, differences of thought become the only differences, and identities of thought the only identities there are. Two thoughts that *seem* different *are* different to all eternity. We can no longer speak of heat and light being reconciled in any *tertium quid* like wave-motion. For motion is motion, and light is light, and heat heat for ever, and their discontinuity is as absolute as their existence. Together with the other attributes and things we conceive, they make up Plato's realm of immutable ideas. Neither *per se* calls for the other, hatches it out, is its "truth," creates it, or has any sort of inward community with it, except that of being comparable in an ego and found more or less differing, or more or less resembling, as the case may be. The world of qualities is a world of things almost wholly discontinuous *inter se*. Each only says, "I am that I am," and each says it "on its own hook" and with absolute monotony. The continuities of which they *partake*, in Plato's phrase, the ego, space, and time are for most of them the only grounds of union they possess.

It might seem as if in the mere "partaking" there lay a contradiction of the discontinuity. If the white must partake of space, the heat of time, and so forth; do not whiteness and space, heat and time, mutually call for or help to create each other?

Yes; a few such *a priori* couplings must be admitted. They are the axioms: no feeling except as occupying some space and time, or as a moment in some ego; no motion but of something moved; no thought but of an object; no time without a previous time, and the like. But they are limited in number, and they obtain only between excessively broad genera of concepts, and leave quite undetermined what the specifications of those genera shall be. What feeling shall fill *this* time, what substance execute *this* motion, what qualities combine in *this* being, are as much unanswered questions as if the metaphysical axioms never existed at all.

The existence of such syntheses as they are does then but slightly mitigate the jolt, jolt, jolt we get when we pass over the facts of the world. Everywhere indeterminate variables,

subject only to these few vague enveloping laws, independent in all besides—such seems the truth.

In yet another way too, ideal and real are so far apart that their conjunction seems quite hopeless. To have our cake and eat it, to lose our soul and save it, to enjoy the physical privileges of selfishness and the moral luxury of altruism at the same time—would be the ideal. But the real offers us these terms in the shape of mutually exclusive alternatives of which only one can be true at once, so that we must choose, and in choosing murder one possibility. The wrench is absolute,—"Either—or!" Just as whenever I bet a hundred dollars on an event, there comes an instant when I am a hundred dollars richer or poorer without any intermediate degrees passed over; just as my wavering between a journey to Portland or to New York does not carry me from Cambridge in a resultant direction in which both motions are compounded, say to Albany, but at a given moment results in the conjunction of reality in all its fulness for one alternative and impossibility in all its fulness for the other: so the bachelor joys are utterly lost from the face of being for the married man, who must henceforward find his account in something that is not them but is good enough to make him forget them; so the careless and irresponsible living in the sunshine, the "unbuttoning after supper and sleeping on benches in the afternoon," are stars that have set upon the path of him who in good earnest makes himself a moralist. The transitions are abrupt, absolute, truly shot out of a pistol, for while many possibilities are called, the few that are chosen are chosen in all their sudden completeness.

Must we then think that the world that fills space and time can yield us no acquaintance of that high and perfect type yielded by empty space and time themselves? Is what unity there is in the world mainly derived from the fact that the world is *in* space and time and "partakes" of them? Can no vision of it forestall the facts of it, or know from some fractions the others before the others have arrived? Are there real ambiguities which forbid there being any equivalent for the happening of it all but the happening itself? Can we gain no anticipatory assurance that what is to come will have no strangeness? Is there no substitute, in short, for life but the living itself in all its long-drawn weary length and breadth and thickness?

In the negative reply to all these questions, a modest common sense finds no difficulty in acquiescing. To such a way of thinking the notion of "partaking" has a deep and real significance. Who partakes of a thing enjoys his share and comes in contact with the thing and its other partakers. But he claims no more.

His share in no wise negates the thing or their share; nor does it preclude his possession of reserved and private powers with which they have nothing to do, and which are not all absorbed in the mere function of sharing. Why may not the world be a sort of republican banquet of this sort, where all the qualities of being respect each other's personal sacredness, yet sit at the common table of space and time?

To me this view seems deeply probable. Things cohere, but the act of cohesion itself implies but few conditions, and leaves the rest of their qualifications indeterminate. As the first three notes of a tune comport many endings, all melodious, but the tune is not named till a particular ending has actually come; so the parts actually known of the universe may comport many ideally possible complements. But as the facts *are* not the complements, so the knowledge of the one is not the knowledge of the other, in anything but the few necessary elements of which all must partake in order to be together at all. Why, if one act of knowledge could from one point take in the total perspective, with all mere possibilities abolished, should there ever have been any thing more than that act? Why duplicate it by the tedious unrolling inch by inch of the foredone reality? No answer seems possible. On the other hand if we stipulate only a partial community of partially independent powers, we see perfectly why no one part controls the whole view, but each detail must come and be actually given, before, in any special sense, it can be said to be determined at all. This is the moral view, the view that gives to other powers the same freedom it would have itself,—not the ridiculous "freedom to do right," which in my mouth can only mean the freedom to do as *I* think right, but the freedom to do as *they* think right, or wrong either. After all, what accounts do the nethermost bounds of the universe owe to me? By what insatiate conceit and lust of intellectual despotism do I arrogate the right to know their secrets, and from my philosophic throne to play the only airs they shall march to, as if I were the Lord's anointed? Is not my knowing them at all a gift and not a right? And shall it be given before they are given? *Data! Gifts!* Something to be thankful for! It is a gift that we can approach things at all, and by means of the time and space of which our minds and they partake, alter our actions so as to meet them.

There are "bounds of ordnance" set for all things, where they must pause or rue it. "Facts" are the bounds of human knowledge, set for it, not by it.

Now to a mind like Hegel's such pusillanimous twaddle sounds

simply loathsome. Bounds that we can't overpass! Data! Facts that say "Hands off, till we are given"! Possibilities we can't control! A banquet of which we merely share! Heavens, this is intolerable; such a world is no world for a philosopher to have to do with. He must have all or nothing. If the world can't be rational in my sense, in the sense of unconditional surrender, I refuse to grant that it is rational at all. It is pure incoherence, a chaos, a nulliverse, to whose haphazard sway I will not truckle. But no, this is not the world. The world is philosophy's own; a Single Block, of which, if she once get her teeth on any part, the whole shall inevitably become her prey and feed her all-devouring theoretic maw. Naught shall be but the necessities she creates, and impossibilities. Freedom shall mean freedom to obey her will. Ideal and actual shall be one; she, and I as her champion, will be satisfied on no lower terms.

The insolence of sway, the ὕβρις on which gods take vengeance, is in temporal and spiritual matters usually admitted to be a vice. A Bonaparte and a Philip II. are called monsters. But when an *intellect* is found insatiate enough to declare that all existence must bend the knee to its requirements, we do not call its owner a monster, but a philosophic prophet. May not this be all wrong? Is there any one of our functions exempted from the common lot of liability to excess? And where everything else must be contented with its part in the universe, shall the theorising faculty ride rough-shod over the whole?

I confess I can see no *a priori* reason for the exception. He who claims it must be judged by the consequences of his acts, and by them alone. Let Hegel then confront the universe with his claim and see how he can make the two match.

The universe absolutely refuses to let him travel without jolt. Time, space, and his ego are continuous; so are degrees of heat, shades of light and colour, and a few other serial things; so too do potatos call for salt, and cranberries for sugar, in the taste of one who knows what salt and sugar are. But on the whole there is naught to soften the shock of surprise to his intelligence, as it passes from one quality of being to another. Light is not heat, heat is not light, and to him who holds the one the other is not given till it give itself. Real being comes and goes moreover from any concept at its own sweet will with no permission asked of the conceiver. In despair must Hegel lift vain hands of imprecation, and since he will take nothing but the whole, he must throw away even the part he might retain, and call the nature of things an *absolute* muddle and incoherence.

But hark! What wondrous strain is this that steals upon his ear? Incoherence itself, may it not be the very sort of coherence I require? Muddle, is it anything but a peculiar sort of transparency? Is not jolt passage? Is friction other than a kind of lubrication? Is not a chasm a filling? a queer kind of filling, but a filling still. Why seek for a glue to hold things together when their very falling apart is the only glue you need? Let all that negation which seemed to disintegrate the universe be the mortar that combines it, and the problem stands solved.

The paradoxical character of the notion could not fail to please a mind monstrous even in its native Germany, where mental excess is endemic. Richard, for a moment brought to bay, is himself again. He vaults into the saddle, and from that time his career is that of a philosophic desperado, one series of outrages upon the chastity of thought.

And can we not ourselves sympathise with his mood in some degree? The old receipts of squeezing the thistle and taking the bull by the horns have many applications. An evil frankly accepted loses half its sting and all its terror. The Stoics had their cheap and easy way of dealing with evil. *Call* your woes goods, they said, refuse to *call* your lost blessings by that name, and you are happy. So of the unintelligibilities: *call* them means of intelligibility, and what farther do you require? There is even a more legitimate excuse than that. In the *exceedingness* of the facts of life over our formulas lies a standing temptation at certain moments to give up trying to say anything adequate about them, and to take refuge in wild and whirling words which but confess our impotence before their ineffability. Thus Baron Bunsen writes to his wife: "Nothing is near but the far; nothing true but the highest; nothing credible but the inconceivable; nothing so real as the impossible; nothing clear but the deepest; nothing so visible as the invisible; and no life is there but through death". Of these ecstatic moments the *credo quia impossibile* is the classical expression. Hegel's originality lies in his making their mood permanent and sacramental and authorised to supersede all others—not as a mystical bath and refuge for feeling when tired Reason sickens of her intellectual responsibilities (thank Heaven! that bath is always ready), but as the very form of intellectual responsibility itself.

And now after this long introduction, let me trace some of Hegel's ways of applying his discovery. His system resembles a mouse-trap, in which, if you once pass the door, you may be lost for ever. Safety lies in not entering. Hegelians have

anointed, so to speak, the entrance with various considerations which, stated in an abstract form, are so plausible as to slide us unresistingly and almost unwittingly through the fatal arch. It is not necessary to drink the ocean to know that it is salt; nor need a critic dissect a whole system after proving that its premisses are rotten. I shall accordingly confine myself to a few of the points that captivate beginners most; and assume that if they break down, so must the system which they prop.

First of all, Hegel has to do utterly away with the sharing and partaking business he so much loathes. He will not call contradiction the glue in one place and identity in another; that is too half-hearted. Contradiction must be a glue universal, and must derive its credit from being shown to be latently involved in cases that we hitherto supposed to embody pure continuity. Thus, the relations of an ego with its objects, of one time with another time, of one place with another place, of a cause with its effect, of a thing with its properties, and especially of parts with wholes, must be shown to involve contradiction. Contradiction, shown to lurk in the very heart of coherence and continuity, cannot after that be held to defeat them, and must be taken as the universal solvent. Or rather there is no longer any need of a solvent. To "dissolve" things in identity was the dream of earlier cruder schools. Hegel will show that their very difference is their identity, and that in the act of detachment the detachment is undone and they fall into each other's arms.

Now at the very outset it seems rather odd that a philosopher who pretends that the world is absolutely rational, or in other words that it can be completely understood, should fall back on a principle, the identity of contradictories, which utterly defies understanding, and obliges him in fact to use the word understanding, whenever it occurs in his pages, as a term of contempt. Take the case of space we used above. The common man who looks at space believes there is nothing in it to be acquainted with beyond what he sees; no hidden machinery, no secrets, nothing but the parts as they lie side by side and make the static whole. His intellect is satisfied with accepting space as an ultimate genus of the given. But Hegel cries to him: "Dupe, dost thou not see it to be one nest of incompatibilities? Do not the unity of its wholeness and the diversity of its parts stand in patent contradiction? Does it not both unite and divide things, and but for this strange and irreconcilable activity, would it be at all? The hidden dynamism of self-contradiction is what incessantly produces the static appearance by which your sense is fooled."

But if the man ask how self-contradiction *can* do all this, and

how its dynamism may be seen to work, Hegel can only reply by showing him the space itself and saying: "Lo, *thus*". In other words, instead of the principle of explanation being more intelligible than the thing to be explained, it is absolutely unintelligible if taken by itself; and must appeal to its pretended product to prove its existence. Surely such a system of explaining *notum per ignotum*, of making the *explicans* borrow credentials from the *explicand*, and of creating paradoxes and impossibilities where none were suspected, is a strange candidate for the honour of being a complete rationaliser of the world.

The principle of the contradictoriness of identity and the identity of contradictories is the essence of the Hegelian system. But what probably washes this principle down most with beginners is the combination in which its author works it with another principle which is by no means characteristic of his system, and which, for want of a better name, might be called the "principle of totality". This principle says that you cannot adequately know even a part until you know of what whole it forms a part. As Aristotle writes and Hegel loves to quote, an amputated hand is not even a hand. And as Tennyson says:

> "Little flower—but if I could understand
> What you are, root and all, and all in all,
> I should know what God and man is."

Obviously until we have taken in all the relations, immediate or remote, into which the thing actually enters or potentially may enter, we do not know all *about* the thing.

And obviously for such an exhaustive acquaintance with the thing, an acquaintance with every other thing, actual and potential, near and remote, is needed; so that it is quite fair to say that omniscience alone can completely know any one thing as it stands. Standing in a world of relations, that world must be known ere the thing is fully known. This doctrine is of course an integral part of empiricism, an integral part of common sense. Since when could good men not apprehend the passing moment in the light of life's larger sweep? not grow dispassionate the more they stretched their view? Did the "law of sharing" so little legitimate their procedure, that a law of identity of contradictories, forsooth! must be trumped up to give it scope? Shame on the idea!

Hume's account of causation is an excellent illustration of the way Empiricism may use the principle of totality. We call something a cause; but we at the same time deny its effect to be in any latent way contained in, or substantially identical with it. We thus cannot tell in what respect its causality obtains until its

effect has actually supervened. The effect, then, or something beyond the thing is what makes the thing to be so far as it is a cause. Humism thus says that its causality is something adventitious and not necessarily given when its other attributes are there. Generalising this, empiricism contends that we must everywhere distinguish between the intrinsic being of a thing and its relations, and, among these, between those that are essential to our knowing it at all and those that may be called adventitious. The thing as actually present in a given world is there with *all* its relations; for it to be known as it *there* exists, they must be known too, and it and they form a single fact for any consciousness large enough to embrace that world as a unity. But what constitutes this singleness of fact, this unity? Empiricism says: nothing but the relation-yielding matrix in which the several items of the world find themselves embedded; time, namely, and space, and the mind of the knower. And it says that were some of the items quite different from what they are and others the same, still for aught we can see, an equally unitary world might be, provided each item were an object for consciousness and occupied a determinate point in space and time. All the *adventitious* relations would in such a world be changed, along with the intrinsic natures and places of the beings between which they obtained; but the "principle of totality" in knowledge would in no wise be affected.

But Hegelism dogmatically denies all this to be possible. In the first place it says there are no intrinsic natures that may change; in the second it says there are no adventitious relations. When the relations of what we call a thing are told, no *caput mortuum* of intrinsicality, no "nature" is left. *The relations soak up all there is of the thing;* the "items" of the world are but *foci* of relation with other *foci* of relation. *And all the relations are necessary.* The unity of the world has nothing to do with any "matrix". The matrix and the items, each with all, make a unity, simply because each in truth *is* all the rest. The proof lies in the *hegelian* principle of totality, which demands that if any one part be posited alone all the others shall forthwith *emanate* from it and infallibly reproduce the whole. In the *modus operandi* of the emanation comes in, as I said, that partnership of the principle of totality with that of the identity of contradictories that so recommends the latter to beginners in Hegel's philosophy. To posit one item alone is to *deny* the rest; to deny them is to refer to them; to refer to them is to begin, at least, to bring them on the scene; and to begin is in the fulness of time to end.

If we call this a Monism, Hegel is quick to cry, Not so! To

say simply that the one item is the rest of the universe is as false and one-sided as to say that it is simply itself. It is both and neither; and the only condition on which we gain the right to affirm that it is, is that we fail not to keep affirming all the while that it is not, as well. Thus the truth refuses to be expressed in any single act of judgment or sentence. The world appears as a monism *and* a pluralism, just as it appeared in our own introductory exposition.

But the trouble that keeps us and Hegel from ever joining hands over this apparent formula of brotherhood, is that we distinguish, or try to distinguish, the respects in which the world is one from those in which it is many, while all such stable distinctions are what he most abominates. The reader may decide which procedure helps his reason most. For my own part, the time-honoured formula of empiricist pluralism, that the world cannot be set down in any single proposition, grows less instead of more intelligible when I add, "And yet the different propositions that express it are one"!! The unity of the propositions is that of the mind that harbours them. Anyone who insists that their diversity is itself their unity can only do so because he loves obscurity and mystification for their own pure sakes.

Where you meet with a contradiction among realities, Herbart used to say, it shows you have failed to make a real distinction. Hegel's sovereign method of going to work and saving all possible contradictions, lies in pertinaciously refusing to distinguish. He takes what is true of a term *secundum quid*, treats it as true of the same term *simpliciter*, and then, of course, applies it to the term *secundum aliud*. A good example of this is found in the first triad. This triad shows that the mutability of the real world is due to the fact that Being constantly negates itself, that whatever *is* by the same act *is not*, and gets undone and swept away, and that thus the irremediable torrent of life about which so much rhetoric has been written has its roots in an ineluctable necessity which lies revealed to our logical Reason. This notion of a Being for ever stumbling over its own feet and having to change to exist at all, is a very picturesque symbol of the reality, and probably one of the points which make young readers feel as if a deep core of truth lay in the system.

But how is the reasoning done? Pure Being is assumed, without determinations, Being *secundum quid*. In this respect it agrees with nothing. Therefore *simpliciter* it is nothing; wherever we find it, it is nothing; crowned with complete determinations then, or *secundum aliud*, it is nothing still, and *hebt sich auf*.

It is as if we said: Man without his clothes may be named "the Naked". Therefore man *simpliciter* is the naked. And finally man with his hat, shoes, and overcoat on is the naked still.

Of course we may in this instance or any other repeat that the conclusion is strictly true, however comical it seems. Man within the clothes is naked, just as he is without them. Man would never have invented the clothes had he not been naked. The fact of his being clad at all does prove his essential nudity. And so in general, the form of any judgment, being the addition of a predicate to a subject, shows that the subject has been conceived without the predicate, and thus by a strained metaphor may be called the predicate's negation. Well and good! let the expression pass. But we must notice this. The judgment has now created a new subject, the naked-clad, and all propositions regarding this must be judged on their own merits, for those true of the old subject, "the naked," are no longer true of this one. For instance, we cannot say because the naked man pure and simple must not enter the drawing-room or is in danger of taking cold, that the naked man with his clothes on will take cold or must stay in his bedroom. Hold to it eternally that the clad man *is* still naked if it amuse you—'tis designated in the bond; but the so-called contradiction is a sterile boon. Like Shylock's pound of flesh, it leads to no consequences. It does not entitle you to one drop of his christian blood either in the way of catarrh, social exclusion, or what further results pure nakedness may involve.

In a version of the first step given by our foremost American Hegelian,[1] we find this playing with the necessary form of judgment. Pure Being, he says, has no determinations. But the having none is *itself* a determination. Wherefore pure Being contradicts its own self, and so on. Why not take heed to the *meaning* of what is said? When we make the predication concerning pure Being our meaning is merely the denial of all *other* determinations than the particular one we make. The showman who advertised his elephant as "larger than any elephant in the world except himself" must have been in an hegelian country where he was afraid the audience would *nachgrübeln*: "This elephant, larger than any in the world, involves a contradiction; for he himself is in the world, and so stands endowed with the virtue of being both larger and smaller than himself,—a perfect hegelian elephant, whose immanent self-contradictoriness can only be removed in a higher synthesis. Show us the higher synthesis! We don't care to see such a mere abstract

[1] *Journal of Speculative Philosophy*, Vol. VIII., p. 37.

creature as your elephant." It may be (and it was indeed suggested in antiquity) that all things are of their own size by being both larger and smaller than themselves. But in the case of this elephant the scrupulous showman nipped such philosophising and all its inconvenient consequences in the bud, by explicitly intimating that larger than any *other* elephant was all he meant.

Hegel's quibble with this word *other* exemplifies the same fallacy. All "others," as such, are according to him identical. That is, "otherness," which can only be predicated of a given thing A, *secundum quid*, as other than B, &c., is predicated *simpliciter*, and made to identify the A in question with B, which is other only *secundum aliud*—namely other than A. Another maxim that Hegelism is never tired of repeating is that "to know a limit is already to be beyond it". "Stone walls do not a prison make, nor iron bars a cage." The inmate of the penitentiary shows by his grumbling that he is still in the stage of abstraction and of separative thought. The more keenly he thinks of the fun he might be having outside, the more deeply he ought to feel that the walls identify him with it. They set him beyond them *secundum quid*, in imagination, in longing, in despair; *argal* they take him there *simpliciter* or every way, in flesh, in power, in deed. Foolish convict, to ignore his blessings!

Another mode of stating his principle is this: "To know the finite, as such, is also to know the infinite". Expressed in this abstract shape the formula is as insignificant as it is unobjectionable. We can cap every word with a negative particle, and the word *finished* immediately suggests the word *unfinished* and we know the two words together.

But it is an entirely different thing to take the knowledge of a concrete case of ending and to say that it virtually makes us acquainted with other concrete facts *in infinitum*. For, in the first place, the end may be an absolute one. The *matter* of the universe, for instance, is according to all appearances in finite amount; and if we knew that we had counted the last bit of it, infinite knowledge in that respect so far from being given would be impossible. With regard to *space*, it is true that in drawing a bound we are aware of more. But to treat this little fringe as the equal of infinite space is ridiculous. It resembles infinite space *secundum quid*, or in but one respect—its spatial quality. We believe it homogeneous with whatever spaces may remain; but it would be fatuous to say, because one dollar in my pocket is homogeneous with all the dollars in the country that to have it is to have them. The further points of space are

as numerically distinct from the fringe as the dollars from the dollar, and not until we have actually intuited them can we be said to "know" them *simpliciter*. The Hegelian reply is that the *quality* of space constitutes its only *worth*, and that there is nothing true, good, or beautiful to be known in the spaces beyond which is not already known in the fringe. This introduction of a eulogistic term into a mathematical question is original. The "true" and the "false" infinite are about as appropriate distinctions in a discussion of cognition as the good and the naughty rain would be in a treatise on meteorology. But when we grant that all the "worth" of the knowledge of distant spaces is due to the knowledge of what they may carry in them, it then appears more than ever absurd to say that the knowledge of the fringe is a substitute for the infinitude of distant knowledge. The distant spaces *simpliciter* are not yet yielded to our thinking, and even if they were yielded *simpliciter* would not be yielded *secundum aliud*, or in respect to their material filling out.

Shylock's bond was an omnipotent instrument compared with this knowledge of the finite, which remains the ignorance it always was, till the infinite by its own act has piece by piece placed itself in our hands.

Here Hegelism cries out: "By the identity of the knowledges of infinite and finite I never meant that one could be a *substitute* for the other, nor does true philosophy ever mean by identity capacity for substitution". This sounds suspiciously like the good and the naughty infinite, or rather like the mysteries of the Trinity and the Eucharist. To the unsentimental mind there are but two sorts of identity, total identity and partial identity. Where the identity is total the things can be substituted wholly for each other. Where substitution is impossible it must be that the identity is incomplete. It is the duty of the student then to ascertain the exact *quid*, *secundum* which it obtains, as we have tried to do above. Even the Catholic will tell you that when he believes in the identity of the wafer with Christ's body, he does not mean in all respects, so that he might use it to exhibit muscular fibre, or a cook make it smell like baked meat in the oven. He means that in the one sole respect of nourishing his being in a certain way, it is identical with and *can* be substituted for the very body of his Redeemer.

"The knowledge of opposites" is one of the hegelian first principles, of which the preceding are perhaps only derivatives. Here again Hegelism takes "knowledge" *simpliciter*, and substituting it for a particular respect, avails itself of the confusion to

cover other respects never originally implied. When the knowledge of a thing is given us, we no doubt think that the thing may or must have an opposite. This postulate of something opposite we may call a "knowledge of the opposite" if we like, but it is a knowledge of it in only that one single respect, that it is something opposite. No number of opposites to a quality we have never directly experienced could ever lead us positively to infer what that quality is. There is a jolt between the negation of them and the actual positing of it in its proper shape, that twenty logics of Hegel harnessed abreast can't drive us smoothly over.

The use of the maxim "All determination is negation" is the fattest and most full-blown application of the method of refusing to distinguish. Taken in its vague confusion it probably does more than anything else to produce the sort of flicker and dazzle which are the first mental conditions for the reception of Hegel's system. The word negation taken *simpliciter* is treated as if it covered an indefinite number of *secundums*, culminating in the very peculiar one of self-negation. Whence finally the conclusion is drawn that assertions are universally self-contradictory. As this is an important matter, it seems worth while to treat it a little minutely.

When I measure out a pint, say of milk, and so determine it, what do I do? I virtually make two assertions regarding it: it *is* this pint, it is *not* those other gallons. One of these is an affirmation, the other a negation. Both have a common subject, but the predicates being mutually exclusive, the two assertions lie beside each other in endless peace.

I may with propriety be said to make assertions more remote still—assertions of which those other gallons are the subject. As it is not they, so are they not the pint which it is. The determination "this is the pint" carries with it the negation: "those are not the pints". Here we have the same predicate, but the subjects are exclusive of each other, so there is again endless peace. In both couples of propositions negation and affirmation are *secundum aliud*: this is *a*; this isn't not-*a*. This kind of negation involved in determination cannot possibly be what Hegel wants for his purposes. The table is not the chair, the fireplace is not the cupboard—these are literal expressions of the law of identity and contradiction, those principles of the abstracting and separating understanding for which Hegel has so sovereign a contempt, and which his logic is meant to supersede.

And accordingly Hegelians pursue the subject farther, saying there is in every determination an element of real conflict. Do you not in determining "the milk" to this pint, *exclude* it

for ever from the chance of being those gallons, frustrate it from expansion? And so do you not equally exclude them from the being which it now maintains as its own?

Assuredly if you had been hearing of a land flowing with milk and honey and had gone there with unlimited expectations of the rivers the milk would fill, and if you found there was but this single pint in the whole country, the determination of the pint would exclude another determination which your mind had previously made of the milk. There would be a real conflict resulting in the victory of one side. The "rivers" would be negated by the single pint being affirmed, and as rivers and pint are affirmed of the same milk (first as supposed and then as found) the contradiction would be complete.

But it is a contradiction that can never by any chance occur in real nature or being. It can only occur between a false representation of a being and the true idea of the being where actually cognised. The first got into a place where it had no rights and had to be ousted. But in *rerum naturâ* things don't get into each other's logical places. The gallons first spoken of never say "We are the pint"; the pint never says "I am the gallons". It never tries to expand, and so there is no chance for anything to exclude or negate it so far as it is affirmed. It thus remains affirmed absolutely.

Can it be believed in the teeth of these elementary truths that the principle *determinatio negatio* is held throughout Hegel to imply an active contradiction, conflict, and exclusion? Do the horse-cars jingling outside negate me writing in this room? Do I, reader, negate you? Of course if I say, "Reader, we are two, and therefore *I am* two," I negate you, for I am actually thrusting a part into the seat of the whole. The orthodox logic expresses the fallacy by saying the *we* is taken by me distributively instead of collectively. But as long as I do not make this blunder, and am content with my part, we all are safe. In *rerum naturâ* parts remain parts. Can you imagine one position in space trying to get into the place of another position and having to be "contradicted" by that other? Can you imagine your thought of an object trying to dispossess the real object from its being and so being negated by it? The great, the sacred law of partaking, the noiseless step of continuity, seems something that Hegel cannot possibly understand. All or nothing is his one idea. For him each point of space, of time, each feeling in the ego, each quality of being is clamouring, "I am the all. There is naught else but me." This clamour is its essence, which has to be negated in another act which gives it its true determination. What there is affirmative in this determination

is thus the mere residuum left from the negation by others of the negation it originally applied to them.

But why talk of residuum? The Kilkenny cats of fable could leave a residuum in the shape of their undevoured tails. But the Kilkenny cats of existence as it appears in the pages of Hegel are all-devouring and leave no residuum. Such is the unexampled fury of their onslaught that they get clean out of themselves and into each other, nay more, pass right through each other, and then "return into themselves" ready for another round, as insatiate, but as inconclusive as the one that went before.

If I characterised Hegel's own mood as ὕβρις, the insolence of excess, what shall I say of the mood he ascribes to Being? Man makes the gods in his image, and Hegel, in daring to insult the spotless σωφρόσυνη of space and time, the bound-respecters, in branding as strife that law of sharing under whose sacred keeping, like a strain of music, like an odour of incense (as Emerson says) the dance of the atoms goes forward still, seems to me but to manifest his own deformity.

This leads me to animadvert on an erroneous inference which hegelian idealism makes from the form of the negative judgment. Every negation, it says, must be an intellectual act. Even the most *naïf* realism will hardly pretend that the non-table as such exists *in se* after the same fashion as the table does. But table and non-table, since they are given to our thought together, must be consubstantial. Try to make the position or affirmation of the table as simple as you can, it is also the negation of the non-table, and thus positive. Being itself seems after all but a function of intelligence, like negation. Idealism is proved, realism is unthinkable. Now I have not myself the least objection to Idealism, an hypothesis which voluminous considerations make plausible, and whose difficulties may be cleared away any day by new discriminations or discoveries. But I object to proving by these patent ready-made *a priori* methods that which can only be the fruit of a wide and patient induction. For the truth is that our affirmations and negations do not stand on the same footing at all, and are anything but consubstantial. An affirmation says something about an objective existence. A negation says something *about an affirmation*, namely, that it is false. There are no negative predicates or falsities in nature. Being makes no false hypotheses that have to be contradicted. The only denials she can be in any way construed to perform are denials of our errors. This shows plainly enough that denial must be of something mental, since the thing denied is always a fiction. "The table

is not the chair" supposes the speaker to have been playing with the false notion that it may have been the chair. But affirmation may perfectly well be of something having no such necessary and constitutive relation to thought. Whether it really is of such a thing is for harder considerations to decide.

If Idealism be true, the great question that presents itself is whether its truth involve the necessity of an infinite, unitary, and omniscient consciousness, or whether a republic of semi-detached consciousnesses will do, consciousnesses united by a certain common fund of representations but each possessing a private store which the others do not share. Either hypothesis is to me conceivable. But whether the egos be one or many, the *nextness* of representations to each other within them is the principle of unification of the universe. To be thus consciously next to some other representation is the condition to which each representation must submit, under penalty of being excluded from this universe, and like Lord Dundreary's bird "flocking all alone," and forming a separate universe by itself. But this is only a condition of which the representations *partake*. It leaves all their other determinations undecided. To say, because representation *b* cannot be in the same universe with *a* without being *a*'s *neighbour*, that therefore *a* possesses, involves or necessitates *b*, hide and hair, flesh and fell, all appurtenances and belongings, is only the silly hegelian All-or-Nothing insatiateness once more.

Hegel's own logic, with all the complex hocus-pocus of its triads, utterly fails to prove his position. The only evident compulsion which representations exert upon each other is compulsion to submit to the conditions of entrance into the same universe with them—the conditions of continuity, of selfhood, space and time—under penalty of being excluded. But *what* this universe shall be is a matter of fact which we cannot decide till we know what representations have submitted to these its sole conditions. The conditions themselves impose no further requirements. In short the notion that real contingency and ambiguity may be features of the real world is a perfectly unimpeachable hypothesis. Only in such a world can moral judgments have a claim to be. For the bad is that which takes the place of something else which possibly might have been where *it* now is, and the better is that which absolutely might be where it absolutely is not. In the universe of Hegel—the Absolute Block whose parts have no loose play, the pure plethora of necessary being with the oxygen of possibility all suffocated out of its lungs—there can be neither good nor bad, but one dead level of mere fate.

But I have tired the reader out. The worst of criticising Hegel is that the very arguments we use against him give forth strange and hollow sounds that make them seem almost as fantastic as the errors to which they are addressed. The sense of a universal mirage, a ghostly unreality steals over us, which is the very moonlit atmosphere of Hegelism itself. What wonder then if instead of converting, our words do but rejoice and delight those already baptised in the Faith of Confusion? To their charmed senses we all seem children of Hegel together, only some of us have not the wit to know our own father. Just as Romanists are sure to inform us that our reasons against Papal Christianity unconsciously breathe the purest spirit of Catholicism, so Hegelism benignantly smiles at our exertions and murmurs: "If the red slayer think he slays". "When me they fly, I am the wings, &c."

To forefend this unwelcome adoption let me recapitulate in a few propositions the reasons why I am *not* an hegelian.

1. We cannot have our cake and eat it. That is, the only real contradiction there can be between thoughts is where one is true, the other false. When this happens one must go for ever, nor is there any "higher synthesis" in which both can wholly revive.

2. A chasm is not a bridge in any utilisable sense; that is, no mere negation can be the instrument of a positive advance in thought.

3. The continua, time, space, and the ego are bridges, because they are without chasm.

4. But they bridge over the chasms between represented qualities only partially.

5. This partial bridging, however, makes the qualities share in a common world.

6. The other characteristics of the qualities are separate facts.

7. But the same quality appears in many times and spaces. Identity of the quality wherever found becomes thus a further means by which the jolts are reduced.

8. But between different qualities jolts remain. Each, as far as the other is concerned, is an absolutely separate and contingent being.

9. The moral judgment leads us to postulate as irreducible the contingencies thus conceived.

10. The elements thus mutually contingent are not in conflict so long as they partake of the continua of time, space, &c., partaking being the exact opposite of strife. They conflict only when, as mutually exclusive possibilities, they strive to possess themselves of the same parts of time, space, and ego.

11. That there are such real conflicts, irreducible to any in-

telligence, and giving rise to an excess of possibility over actuality, is an hypothesis, but a credible one. No philosophy should pretend to be anything more.

WM. JAMES.

CAMBRIDGE, MASS., U.S.A.

NOTE.—Since the manuscript of the preceding article was committed to the Editor's hands, I have made some observations on the effects of nitrous-oxide-gas-intoxication which have made me understand better than ever before both the strength and the weakness of Hegel's philosophy. I strongly urge others to repeat the experiment, which with pure gas is short and harmless enough. The effects will of course vary with different individuals, just as they vary in the same individual from time to time; but it is probable that in the former case as in the latter a generic resemblance will obtain. With me, as with every other individual of whom I have heard, the keynote of the experience is the tremendously exciting sense of an intense metaphysical illumination. Truth lies open to the view in depth beneath depth of almost blinding evidence. The mind sees all the logical relations of being with an apparent subtlety and instantaneity to which its normal consciousness offers no parallel; only as sobriety returns, the feeling of insight fades, and one is left staring vacantly at a few disjointed words and phrases, as one stares at a cadaverous-looking snow peak from which the sunset glow has just fled, or at the black cinder left by an extinguished brand.

The immense emotional sense of *reconciliation* that characterises the "maudlin" stage of alcoholic drunkenness, a stage that seems silly to lookers-on, but the subjective rapture of which probably constitutes a chief part of the temptation to vice, is well known. The centre and the periphery of things seem to come together. The ego and its objects, the *meum* and the *tuum*, are one. Now this, only a thousandfold enhanced, was the effect upon me of the gas: and its first result was to make peal through me with unutterable power the conviction that Hegelism was true after all, and that the deepest convictions of my intellect hitherto were wrong. Whatever idea or representation occurred to the mind was seized by the same logical forceps, and served to illustrate the same truth, and that truth was that every opposition, among whatsoever things, vanishes in a higher unity in which it is based; that all contradictions, so called, are but differences; that all differences are of degree; that all degrees are of a common kind; that unbroken continuity is of the essence of being; and that we are literally in the midst of *an infinite*, to perceive the existence of which is the utmost we can attain. Without the *same* as a basis, how could strife occur? Strife presupposes something to be striven about; and in this common topic, the same for both parties, the differences merge. From the hardest contradiction to the tenderest diversity of verbiage differences evaporate, *yes* and *no* agree at least in being assertions,—a denial of a statement is but another mode of stating the same, contradiction can only occur of the same thing, all opinions are thus synonyms, are synonymous, are the same. But the same phrase by difference of emphasis is two, and here again difference and no-difference merge in one. It is impossible to convey an idea of the torrential character of the identification of opposites as it streams through the mind in this experience. I have sheet after sheet of phrases dictated or written during the intoxication, which to the sober reader seem meaningless drivel, but which at the moment of transcribing were fused in the fire of infinite rationality. God and devil, good and evil, life and death, I and thou, sober and drunk, matter and form, black and white, quantity and quality, shiver of ecstacy and shudder of horror,

vomiting and swallowing, inspiration and expiration, fate and reason, great and small, extent and intent, joke and earnest, tragic and comic, and fifty other contrasts figure in these pages in the same monotonous way. The mind saw how each term *belonged* to its contrast through a knife-edge moment of transition which *it* effected, and which, perennial and eternal, was the *nunc stans* of life. The thought of mutual implication of the parts in the bare form of a judgment of opposition, as "nothing—but," "no more—than," "only—if," &c., &c., produced a perfect delirium of theoretic rapture. And at last, when definite ideas to work on came slowly, the mind went through the mere *form* of recognising sameness in identity by contrasting the same word with itself, differently emphasised, or shorn of its initial letter. Let me transcribe a few sentences.

What's mistake but a kind of take?

What's nausea but a kind of -ausea?

Sober, drunk, *-unk*, astonishment.

Everything can become the subject of criticism—how criticise without something *to* criticise?

Agreement—disagreement!!

Emotion—motion!!!

Die away from, *from*, die away (without the *from*).

Reconciliation of opposites; sober, drunk, all the same!

Good and evil reconciled in a laugh!

It escapes, it escapes!

But——

What escapes, WHAT escapes?

Emphasis, EMphasis, there must be some emphasis in order for there to be a phasis.

No verbiage can give it, because the verbiage is *other*.

*In*coherent, coherent—same.

And it fades! And it's infinite! AND it's infinite!

If it wasn't *going*, why should you hold on to it?

Don't you see the difference, don't you see the identity?

Constantly opposites united!

The same me telling you to write and not to write!

Extreme—extreme, extreme! Within the *ex*tensity that "extreme" contains is contained the "*extreme*" of *in*tensity.

Something, and *other* than that thing!

Intoxication, and *otherness* than intoxication.

Every attempt at betterment,—every attempt at otherment,—is a ——.

It fades forever and forever as we move.

There *is* a reconciliation!

Reconciliation—*e*conciliation!

By God, how that hurts! By God, how it *doesn't* hurt! Reconciliation of two extremes.

By George, nothing but othing!

That sounds like nonsense, but it is pure *on*sense!

Thought deeper than speech ——!

Medical school; divinity school, *school!* SCHOOL! Oh my God, oh God, oh God!

There are no differences but differences of degree between different degrees of difference and no difference. &c., &c., &c.

The last phrase has the true hegelian ring, being in fact a regular *sich als sich auf sich selbst beziehende Negativität*. And true Hegelians will *überhaupt* be able to read between the lines and feel, at any rate, what *possible* ecstacies of cognitive emotion might have bathed these tattered fragments of thought when they were alive. But for the assurance of a

certain amount of respect for them, I should hardly have ventured to print what must be such caviare to the general.

But now comes the reverse of the medal. What is the principle of unity in all this monotonous rain of instances? Although I did not see it at first, I soon found that it was in each case nothing but the abstract *genus* of which the conflicting terms were opposite species. In other words, although the flood of ontologic *emotion* was hegelian through and through, the *ground* for it was nothing but the world-old principle that things are the same only so far and no farther than they *are* the same, or partake of a common nature—the principle that Hegel most tramples under foot. At the same time the rapture of beholding a process that was infinite changed, as the nature of the infinitude was realised by the mind, into a sense of a dreadful and ineluctable fate, with whose magnitude every finite effort is incommensurable and in the light of which whatever happens is indifferent. This instantaneous revulsion of mood from rapture to horror is, perhaps, the strongest emotion I have ever experienced. I got it repeatedly when the inhalation was continued long enough to produce incipient nausea, and I cannot but regard it as the normal and inevitable outcome of the intoxication, if sufficiently prolonged. A pessimistic fatalism, depth within depth of impotence and indifference, reason and silliness united, not in a higher synthesis, but in the fact that whichever you choose it's all one,—this is the upshot of a revelation that began so rosy bright.

Even when the process stops short of this ultimatum the reader will have noticed from the phrases quoted how often it ends by losing the clue. Something "fades," "escapes," and the feeling of insight is changed into an intense one of bewilderment, puzzle, confusion, astonishment. I know no more singular sensation than this intense bewilderment, with nothing particular left to be bewildered at, save the bewilderment itself. This seems the true *causa sui*, or "spirit become its own object".

My conclusion is that the togetherness of things in a common world, the law of sharing, of which I have said so much, may, when perceived, engender a very powerful emotion; that Hegel was so unusually susceptible to this emotion throughout his life that its gratification became his supreme end and made him tolerably unscrupulous as to the means he employed; that *indifferentism* is the true outcome of every view of the world which makes infinity and continuity to be its essence, and that pessimistic or optimistic attitudes pertain to the mere accidental subjectivity of the moment; finally that the identification of contradictories, so far from being the self-developing process that Hegel supposes, is really a self-consuming process, passing from the less to the more abstract, and terminating either in a laugh at the ultimate nothingness or in a mood of vertiginous amazement at a meaningless infinity.

W. J.

III.—CAUSATION AND ITS ORGANIC CONDITIONS.

I.

One special mental state, one moment of particular consciousness makes up our Here and Now.

How then is this solitary ideal presence linked to the vast array of seemingly absent occurrences called the Past and the Future? How does the actual instant of conscious realisation form part of our assorted fund of personal experience?—of the great system of general knowledge?—of the solid and all-comprising fabric of nature?

To our understanding it seems unquestionable that an isolated conscious state, with no connexions beyond consciousness, cannot possibly exert any influence over events happening in or out of consciousness. If a particular mental state constituting in all our world the only immediate presence, and therefore the only conscious reality; if such an individual and exclusive actuality were indeed a self-sustaining existent, unrelated to a sphere of extra-conscious subsistence, then it would of necessity remain for ever single and unchanged. Itself a paramount reality, resting on no actuating foundation of unfelt existence, it alone would form the veritable substance of being, a disconnected and stationary presence in isolation and immutability evermore abiding.

But by its very presence and peculiar constitution a mental state seems, on the contrary, to summon up from somewhere another mental state, causing our Here and Now to be filled with an influx of new feeling, itself fading gradually away into mysterious latency.

Undeniably we are conscious of nothing but our present mental state. It is this our present mental state which makes up our conciousness all in all. Undeniably the contents of this mental presence are constantly changing, for we are constantly becoming aware of something different.

What is it then that causes the change?

Is there productive efficacy in the mental states as such? Do we possess in the existence of our mental presence that ultimate, self-evolving entity, in whose substantial permanence philosophic imagination has so often sought refuge against the perpetual flow of perishing events? Or is it, perchance, by dint of some potency of its own intrinsic nature that the mental presence influences the hidden resources of unconscious being, compelling to arise therefrom that which constitutes its own change, and therewithal the entire composition of the succeed-

ing state into which it is transformed? Or is the mental presence, on the contrary, simply an effected manifestation, signifying in its various moods the phases of some process of actuation occurring within the domain of extra-conscious reality?

In fine, we wish to know whether in some way the mental presence forms an efficacious link in the concatenation of its own ever-changing states; or whether it is merely an effusion and index of actions performed altogether in a sphere of extra-mental subsistence?

This, in our present condition of knowledge, must certainly form the first of all questions concerning mental consistency and activity.

Mind is generally conceived as a steady and lasting power; in fact, as a substantial continuum, coextensive at least with all its consecutive manifestations. In truth, however, it is but a momentary flash revealing in its one instant of illumination more or less of nature. Another flash has to work a new enlightenment of its own, unassisted by the lustre of previous flashes.

To be faithful to nature we have unreservedly to acknowledge that we are immediately cognisant of nothing but the mental presence. It is only in the moment of actual conscious realisation that the world and our own being become known to us. Thus by "mentality" we can strictly mean only that which just now composes consciousness; and it is clearly a delusion to believe that former conscious states still retain their mental nature when they once have vanished from their mental presence. 'Memory' is no doubt a very convenient name for the stored-up Past, but so far as it is at all a mental property it signifies every time the veritable re-entrance of some constituent into the mental presence. There, and nowhere else, is this represented constituent recognised and greeted as part of one's belongings; belongings that in their non-conscious condition are being preserved for us somehow and somewhere out of mind.

We receive our mental being in conscious instants, each instant forming a totality in itself, and summing up the Past only by dint of actual representation within its own presence.

All this, when fully grasped by our understanding, appears astounding in the highest degree. Nevertheless it is even so. The constructive powers in nature, by infinite modifications and adaptations, have effectively contrived to condense all their diligently-gathered wealth of results into the one proud moment of triumphant outburst that constitutes our conscious Now.

This conscious Now, with whatever strength or weakness it may contain, is all we have of mind. If we wish to continue to attribute efficiency to it, it devolves upon us to conceive how

such an ideal presence can possess within itself creative or, at least, resuscitative power over something that does not really then and there exist for it, that indeed is wholly incommensurable with anything conscious. We have to imagine how an ideal presence can exert a compelling influence over a realm of unknowable subsistence, which we are led to hypostatise as lying somewhere outside our mental sphere inert and dormant in relation to our present feeling.

This much at all events is clear—that if the present mental state does not altogether originate the succeeding mental state, or does not transform its own self entirely into it, then the succeeding state must arise from some unconsciously existing matrix.

It is true there are many philosophers who maintain that the potential totality of mental states subsists above and beyond individual consciousness as a self-sustaining and self-changing power. But to the particular mental state actually present to us no such all-efficient potency is ever attributed. It is merely held by some thinkers that a present conscious state has somehow the capacity of rendering conscious again certain other states that are believed to have been mentally present before, but that are now resting as unconscious potentialities within the vast domain of temporary oblivion.

Now, even amidst our own so extremely complex states of mind, incessantly varying and crowding each other out of consciousness, we become aware that many feelings originate quite out of connexion with other feelings, emerge unsolicited by any previous mental state, directly from the dark womb of unconscious being. Indeed all our most vivid feelings, those we call sensations, are obviously thus mystically derived. Suddenly a new, irrelevant, unwilled, unlooked-for presence intrudes into consciousness, and is at once followed by a complex of feelings specifically related to itself.

Thus we are made forcibly aware that one set of feelings at least, and this the most elementary and conspicuous, becomes conscious without help from anything that can be found in the immediate province of mental actuality. In fact, the entire wealth of sensible things emerges into ideal presence by means absent from the sphere of consciousness and totally foreign to it. Some inscrutable power causes them to arise as felt existences, to enter the mental presence as sensorial[1] constituents. Is it not, therefore, probable that the active spring which raises other kinds of feeling into the mental presence has likewise to

[1] I use the term "sensorial" in preference to "sensuous" or "sensible" to designate that which mentally corresponds to what is physiologically called "sensory".

be sought for outside the province of mental actuality?—that, in truth, the mental presence as such has in no instance any influence over its succeeding states?

On close scrutiny it becomes indeed altogether inconceivable how a mental presence can come to exert any kind of control over the absent resources of unconscious being; how it can force any non-present feeling to relinquish its state of temporary extinction, to emanate anew from its secret matrix.

Unless the mental presence be self-created it must, in the fundamental case of sensations at all events, be sustained from moment to moment by extra-mental powers. That which brings it into consciousness, or rather which makes it conscious, which makes it in fact a mental presence, must unremittingly keep it so as long as it lasts. There is no *vis inertiae*, no self-persisting energy in an ideal presence. Throughout, it is but the luminous effluence of something unattainable by sense. And if this rigorous dependence on unconscious forces has to be conjectured with regard to the most vivid and distinct of all mental occurrences, how much more must such a sustaining foundation be postulated as hiding-place and quickening source of those potentialities that as fainter revivals of previous sensations so largely assist in making up our complex mental presence!

These obvious considerations render it evident that the mental presence in its entire sense-composition—if not self-created—must be wholly dependent for its origin and subsistence on an actuating substratum of unconscious forces.

This, surely, is a very momentous truth not only for Experientialaism, but for Transcendentalism as well. However cautious our attitude, the recognition of the thorough new-production by extra-mental powers of all sense-derived contents of the mental presence will compel us further to concede that the same unconscious forces operate likewise the changes of feeling, the so-called transition from one mental state to another.

It is from the realm of unconsciousness that the mental presence with all its peculiar composition out of sense-derived feelings arises. It is from the realm of unconsciousness that it is from moment to moment sustained; therefore any change occurring in the mental presence must necessarily also be effected in the same prepotent realm of unconscious subsistence. Thus the entire sensorial contents of mind—actual sensations and remembered or represented ones, their whole arrangement within the mental presence, and everyone of their changes therein—all this is discovered to be in every respect the effect of extra-mental forces.

What efficiency, it may well be asked, is there then left for

mind proper after the demonstration of so complete a passive dependence on something that is not mind ?

To readers who are not philosophically convinced that mind is made up of nothing but sensorial elements it will at once occur that everything which is commonly designated as apperceptive activity and will-power has been unnoticed in the above conception of the mental presence: attention, recognition, recollection, subsumption, sentiment of one's own identity, belief in reality external to oneself, emotional impulsion, voluntary actuation—all, in fact, that seems to emanate from the spontaneous resources of our unitary being, from the depths of that mysterious entity which we are wont to call our personality.

Much ingenuity has been bestowed on the attempt to explain away the veritable existence of the consolidating and unifying power with which we so firmly encounter the random rush of intruding sensations and ideas. Sensorial impressions and their derivatives, agglutinated through custom into more and more complex groups, were made to compose the entire fabric of mind. Nothing was discovered in mental activity but a grouping process centripetally worked.

An opposite school of philosophers detected on the contrary centrifugal operation everywhere; a synthetising power emanating from an inscrutable Ego and exerting its transcendent energy on passively received sense-material.

The Philosophy of Organisation, for which I am labouring to lay a solid foundation, seeks to account for both streams of activity. It finds them interpenetrating each other throughout, down to the most elementary sensation and up to the most compound thought, emotion, or volition.

It becomes, therefore, incumbent on us here to show that the centrifugally accruing constituents of the mental presence, which I will call the personal constituents, are as mental facts just as inefficacious as the sensorial constituents.

Here for once both schools are agreed that the personality, from which the mental constituents in question are thought to emanate, is not itself given in consciousness. To the one school our so-called personality appears to be nothing but the sum of all successive mental states; or at most all possible mental states conceived as in some way forming an aggregate of potentialities. The other school believes personality to be a superconscious and permanent entity somehow underlying the temporary manifestation within the mental presence. In any case, the personal constituents of the mental presence, so far as they are at all acknowledged, are allowed to emerge into consciousness from some extra-conscious matrix. And as mind consists altogether in its own conscious presence they must

therefore be likewise completely dependent on non-mental forces. Their origin, subsistence, and mutations must be effected in a sphere of efficiency not itself mental.

However much it may have the appearance in consciousness that the apperceptive ingredients of mind exert, as such, a direct influence over its sensorial contents; or that its sensorial contents have, as such, a determining power over its province of actuation; it is clear that in reality no efficient interaction can take place between mental manifestations as such, between mere evanescent manifestations that have proved to be in their very essence unsubstantial effluences of merely phenomenal consistency.

In this light, our mental presence appears throughout but an irridescent refulgence on an impenetrable gloom of unconscious toil. But, perhaps, just on account of this its mere creatureship and utter passivity, it is all the better fit for faithfully revealing the secret doings of those powers of which it is an emanation. At all events the great problem of efficient interaction does not receive its solution from the examination of pure mentality, and has therefore to be worked at from a different standpoint. That which upholds consciousness and effects the changes therein lies obviously outside of mind. We desire to find some legitimate access to this hidden sphere of activity. If we fail we shall find ourselves inextricably involved in uncompromising phenomenism; nay, only blind faith can save us from downright nihilism. We shall then be far more confounded with regard to certitude of knowledge than Plato's inhabitants of the dark cave; for they had at least a steadfast and unitary mind wherewith to interpret the fleeting shadows; whereas without substantial support from powers outside consciousness our mind itself would consist of nothing but an incoherent sequence of perishing apparitions.

Hume very nearly landed us where we must at last arrive by taking the constituents of mind as the veritable operating realities in nature. But even Hume did not see to the end of the vista opened up by nominalistic idealism into nonentity. In order to derive from his particular and separate mental states some kind of orderly mental structure, he had to postulate a number of processes that evidently do not take place in mind proper, but are only conjectured by means of their results within the mental presence. To begin with: retentiveness and revivability are not really mental properties. Only when a retained impression has been actually revived does it become a mental fact. Where then has the revived fact subsisted during its absence from mental presence? A hypersensible region, where absent ideas may be dwelling in systematic constancy, is cer-

tainly not accessible to our mental view. Thus the orderly emergence into consciousness, the agglutination of mental facts, and the more or less necessary transition from one such fact to another, must evidently be operated in an extra-mental sphere. It is clear, if custom has anything to do with this orderly disposal, it cannot leave its trace on something that for ever vanishes, that, according to Hume himself, is a mere perishing existence annihilated by its absence from the mental presence.

The contiguity or sequence of two mental facts—now present in consciousness and the next moment utterly departed therefrom—can be held with any degree of plausibility to leave a trace on these mental facts only when the latter are believed to be merely temporarily withdrawn from consciousness, but still identically abiding somewhere in latency. Such a surmised subsistence in latency contains, however, virtually the acknowledgment of an unconscious non-mental matrix. A unitary and organised substratum must somehow underlie the orderly and systematised emergence of the particular mental facts. And in that case it would seem that, as mere affections of such a solidary matrix, the particular mental facts need not identically abide when absent from the mental presence. They may be simply re-issued as new-productions of identical activities. When, moreover, on account of their contiguity or succession, seemingly identical facts emerge into consciousness more forcibly and with a stronger bond of union between them than when first experienced, we may be certain that some process of intensification and amalgamation has been meanwhile accomplished within the issuing matrix, and that the enlivened and more firmly welded mental facts are new-productions of this developed state of the matrix.

There is indeed an impassable gulf between conscious and unconscious subsistence. That which because of its consciousness is called a mental fact cannot retain its mentality when departed from consciousness. It cannot subsist as a sensation that is not felt; a perception that is not perceived; a thought that is not cognised; a volition that is not desired. As this one actual mental fact, it has for ever perished. If its like is at any future time to become present again it has to be created anew, has to be entirely reproduced by the permanent substratum at its seat of unconscious operation.

Hume, in his helplessness to account from his sensorial premisses for the growing firmness and ultimate indissolubility of the mental bond and transition, felt compelled to postulate an "observation in the mind" and an "impression of the mind" thereby produced. This, of course, is to assume as pre-existing the very mental structure which he undertakes to weave out of

his separate sensations and ideas. Still not even with all this borrowed fund of unconscious powers could Hume succeed in putting together a mental structure. He could not even then amass a bare "heap of perceptions". His separate mental states would legitimately arrange themselves into nothing but an ever-dissolving view, an endless succession of agglutinated particulars, lapsing into nothingness as soon as they take their leave from consciousness.

We, even before borrowing from the transcendent wealth of unconsciousness, have recognised in mind something far more exalted than a thin thread of connected particulars gathered at intervals into a heap; or, more truly, merely the narrowest streak of consciousness on the verge of perishing particulars. To us the mental presence is a focal manifestation in which subjective and objective, presentative and representative feelings in all shades of vivacity and abstractedness are blending into the momentary realisation of a most compendious microcosm.

But all the more, because of our unfeignedly discovering everything knowable within the mental presence, do we find ourselves seriously entangled in the profoundest perplexity that has ever beset pondering mankind. We are seemingly aware of nothing but the mental presence, and surely the mental facts that compose this mental presence are altogether ephemeral. In mind we ourselves and everything else are wholly made up of a phantasmal play of ever-perishing and ever-recreated existences.

Where then have we and the other things our permanent being?

The inevitable nihilistic consequences of all creeds that rest on mind as the fundamental reality are only thinly concealed by an artifice which, when once fully exposed, must become transparent to all thinkers.

The chief fallacy that has governed and bewildered mental science is rendered at once patent when we realise that a series of mental states cannot be rightly regarded as a real mental existence, cannot be adequately collected into simultaneousness as an actual mental presence. The Past, as such, is irretrievably past, and cannot in this its irrevocable absence any longer count as equivalently forming part of the Present. Only what is now consciously here can in significant language be called a veritable mental existent, and surely it is by a most deluding figure of speech that absent mental possibilities are generally endowed with the same reality and significance as the true mental presence. There can be only one single mental presence; never a train of mental presences. The succession of mental states signifies only a progressive change within the mental presence

itself; a change, the superseded decrements of which have fallen one after another into the absent Past, and have been replaced by new integrant parts entering into the one moment of conscious realisation. The lapsed decrements of feeling can never be identically revived or remembered. Only by being immediately or at some future time newly reproduced as constituents of the actual mental presence do they seem to be thus revived; either vividly through complete re-instatement, or faintly through partial renovation, or representatively through signs.

What has to be chiefly explained in mental science is not so much how the world becomes revealed to us by the natural clinging-together of successive mental states; or by our own orderly putting-together of random sense-material; or by the conscious referring of the perishing manifold to an ideal realm of changeless significance. Mental science has above all to explain how the world becomes actually revealed to us in the one moment of conscious realisation. There is no mind but even Now. Mentally considered the Past is for ever gone. It remains consciously our own only through actual *re*-presentation. And so is the Future with us solely as momentary prescience.

If, nevertheless, the Present seems to us enduring and all-efficient, it is surely not by dint of any virtue of its own, not by dint of any control it is having over the springs of existence. Our mental presence is entirely given to us, is throughout the product of extra-mental powers.

At first sight it may appear passing strange that we, who know our being and its life solely in the sphere of ideal realisation, should nevertheless receive this our seemingly supreme existence and only knowledge as a kind of magic reflex from sources of efficiency other and deeper than any mental presence; strange that the enduring moment of mental actuality, which makes up our whole individual realisation of whatever there may be in the world, should thus in passivity and ineffectiveness obtain as a gratuity from unknowable repositories of power all its singular vivacity and inspiration so intensely significant, so impressively real and all-important to us.

Yet in some of its aspects this truth of otherness within the mental presence forms part of our strongest convictions. Indeed, with regard to those special mental states called percepts, it is to us the most irresistible of all truths. We are unhesitatingly certain that it is a foreign non-mental existence that occupies our conscious moment; and it requires much afterthought to persuade ourselves that, notwithstanding this forcible semblance of external reality, the feeling of the foreign thing was like all other feelings also immediately only a mentally

fashioned presence. But even the philosophic recollection of this evident state of things will not suffice to make us relinquish our implicit faith in an efficient outside source of the mental image. We deliberately hypostatise a sense-compelling thing-in-itself, dwelling persistently in a sphere external to consciousness. Without this realistic assumption and its all but unfailing confirmation through sensory channels, our actions would be meaningless. We should not move like beings guided by a world of foreign helps and hindrances, but like madmen wildly and incoherently acting in obedience to random impulses from within.

And not only do we regard the complex fabric of our perceptions and their derivatives as signifying an extra-mental system of things; we endow in a similar manner the personal constituents of mind with a transcendent meaning and reality, holding them naturally to be but special manifestations of that one permanent entity which constitutes our unitary being.

To some it may still appear that, by thus postulating an efficient fund of unconscious powers as the operating substratum of the mental presence, we are overreaching the rightful limits of conjecture. But only one alternative otherwise remains. If mental states are existences uncaused by anything not themselves, then we have before us the miracle of miracles—a creation from nothing.

We awake from a state of ordinary unconsciousness. Our mental presence becomes filled with contents. Where do these mental existences come from? If not produced by forces outside consciousness they must needs be self-created, must have arisen unconvened from inanity. Our understanding, otherwise so submissive, stubbornly recoils from such an all-annihilating assumption. Not, indeed, that our thought need feel utterly prostrated at all the implications of the nihilistic ultimatum of ancient and modern philosophy. In one sense, everything we know must have once been created out of nothing. And even now we can quite well conceive how something that has been nothing to us before, may actually begin, for the very first time in nature, to manifest itself as a mental presence; may be by force of some newly-acquired faculty of our being, may be by force of some new combination of other unconscious powers. Thus everything that we now find within the mental presence must originally, when it first appeared there, have accrued to it out of nothingness. But, in framing this conception of a new creation of something now felt out of nothing ever felt before, we are drawing on an unlimited store of extra-conscious reality, which we imagine somehow pre-existing as an original source of power.

It is quite otherwise in assuming that a mental presence is self-creating and self-changing. Here our most productive imagination fails to supply an efficient background of existence from which to elicit the actual mental appearance, and from which then to effect its successive modifications in consciousness. Self-caused, self-supported, self-moving, the momentary mental presence would form the sole reality in existence, signifying nothing beyond itself. This, it need hardly be said, is hopeless Nihilism.

Being thus inevitably forced to admit, either a creation out of nothing, which occurrence cannot be even philosophically conceived, or causation by non-mental powers, which is already naturally presupposed in every cognition; who can wonder if regardless of doctrinal consequences, we feel bound uncompromisingly to adopt the latter alternative? We, therefore, recognise as groundwork of all knowledge the truth, that the mental presence is *in toto* the effect of non-mental powers, of such powers as, according to manifold evidence, are forming its unconscious potentiality.

It has been the custom to condense in imagination the potential totality of mental facts into the compass of a single mental presence, and then with more or less plausibility to make pretence at evolving from the all-comprising entity thus hypostatised any possible configuration or train of mental states. But by this evident misconstruction our shallow human penetration is unwittingly striving to truncate the substance of existence, to despoil our mystic being of all its transcendent bearings, of all its empyrean influx of treasure. And this prevalent freak of inverted understanding constitutes by no means a harmless theoretical error, but influences deeply our actual destinies. For the sake of our future welfare as an organic unity of human beings, it behoves us earnestly to seek an unbiassed insight into the veritable seat and fulcrum of the actuating powers.

Of late it has become the growing tendency of almost all philosophical schools to dissolve in some way or other the entire fabric of the universe into mere mental subsistence. Experientialists as well as Transcendentalists are alike zealous to show how the world at large consists of nothing but mind: the former attempting to put everything together out of mental elements; the latter believing that they can derive all particular phenomena from an ideal totality. Even scientists, not long ago materialistically inclined, are now indulging their imagination in the construction of a Monism, in which all reality is to be built up of genuine elements of feeling.

Mind, which in this connexion means the manifold manifestations of its complete potential range, is fancied to be composed

of nothing but units of sensation variously grouped. This being all there is of the inner aspect, it is believed that this subjective state of existence represents somehow adequately the inside of what appears otherwise to us as objective existence: the resting nerve-particle being itself the potential sense-element; the vibrating nerve-particle, the actual sense-element. Thus, to every outer experience in nature, there will likewise correspond identical with it an inner experience. But as all our immediate knowledge of nature is sense-composed, we may safely conclude that sense-elements as such constitute the only true and ultimate reality.

Or the train of thought may run thus: On final analysis the world seems to resolve itself without remainder into a complex of primary sensations and motions. But as motions, together with their manifesting media, time and space, are evidently themselves formed only by a definite grouping of sense-elements, it is clear that sense-elements are the ultimate world-material.

After what has been here previously established, no further examination of these sense-constructed cosmologies is required. From whatever point of view anything within the mental presence is taken for an original and elemental reality, an absolute creation out of nothing has therewithal to be assumed, and science of any kind is rendered nugatory.

In truth, however, we are in possession of many sciences, and we are merely anxious to learn on what foundation all this wealth of knowledge rests, hoping that by a well-directed bearing towards the knowledge-giving powers we may henceforth steer better our aim-hidden course.

To sum up: I think that, in consequence of our demonstration of the total dependence of the mental presence on extra-mental forces, we are justified in designating as the only true pivot on which the entire theory of knowledge may securely rest and turn, the truth—that all mental states are effects and nothing but effects; that they are rigorously caused in every distinguishable particular of their respective constitutions; and that every slightest change, happening in the field of mental vision and discrimination, is likewise strictly caused by non-mental occurrences.

II.

We have now gained a firm standpoint, from which we shall find ourselves enabled to explore, with much avoidance of confusion, the nature and complications of Causation. We were led to acknowledge that all phenomena of consciousness are effects

of unconscious causes, that they are throughout the expression of non-mental powers. Nothing but effects are present in mind. The causes of these effects are always only inferred, assumed, hypostatised, or however we may name the conviction of transcendent meaning which accompanies all kinds of feeling; connecting them invariably with the system of potentialities which we call our personality, and connecting special kinds of them moreover with the other system of potentialities which we call the external world.

The fundamental significance of causation is, therefore, clearly the reference of manifest conscious effects to hidden unconscious causes as their originating and sustaining source.

We have next to consider how it comes that from sundry kinds of effects in consciousness we happen naturally to infer specific corresponding causes outside consciousness.

First of all we are immediately and steadfastly aware that our percepts at least are not self-originating and self-sustaining; that they are on the contrary compelled by influences foreign to ourselves.[1] Our sensibility finds itself impressed in a specific manner by agencies evidently not belonging to our own being. For, the more we exert our individual activities upon the imposed presence, the more attentive and scrutinising our attitude towards it, the more do we become convinced that an outside power is playing upon us. Possessing as proof of this nothing but the compelled configuration of feelings, it is very natural that this should stand with us for the affecting powers themselves. It is their adequate signature and sole manifestation of existence. We, therefore, unhesitatingly take the specific configuration of aroused feelings directly to signify a specific combination of outside powers, and our thoughts and actions shape themselves accordingly.

If we are deceived therein, if in some way our percepts are anomalously compelled by conditions inherent in ourselves, and do thus persist without our wish and will, nay, stubbornly in opposition to it, then we are in imminent danger of losing our hold on reality, and of acting out in life the consequences of our perceptual delusions.

There is indeed no other way of testing existences foreign to ourselves than by ascertaining the range of feelings rigorously compelled by them. In such a process of sensitive testing, systematically carried out, consists essentially the scientific in-

[1] Not to complicate matters too much at this stage of our inquiry, I purposely leave out of account our own body, as perceived through the ordinary sensory channels. In this aspect it is, however, an external existence to our consciousness, producing therein specific effects like any other externality.

vestigation of externalities. In examining the influence which one foreign existence may exert upon another, we are always interposing our own sensibility as testing medium. It is altogether within our own sensorial focus, through the medium of awakened perceptions, that the examined foreign existences disclose the similarities and differences of their affecting powers and the changes which they induce in each other's constitutions. We are therefore committing a grave philosophical error when we believe that we can directly discern the changes wrought by one body upon another. The one body is immediately nothing but our percept, and the other body is likewise only our own percept. Any kind of change occurring can thus be primarily detected only within the sole existences present, *i.e.*, the perceptions, and can be referred to foreign substances only in the same way that the perceptions themselves are referred to foreign existences.

Changes of foreign existences, as regards the intrinsic position of their own constituent parts, or as regards their relative position towards other existences, are solely revealed and evidenced by specific perceptual phenomena in the observer, and are not a whit less thus subjectively revealed than the static condition of the foreign existences. I have indeed never been able to understand why motion, which is merely shifting sensation, should so persistently be construed into a world diametrically opposed to sensation ; motion being held to form the outside or objective aspect of nature, sensation its inside or subjective aspect. Surely the powers that compel the configurations of sensation will be also efficient to compel their shiftings. Perception in repose and perception in motion rest on exactly the same foundation. They are both conscious phenomena, in every respect the product of unconscious powers.

Of course, I can quite well see how this giddy abyss between sensation and motion, so impassable and bewildering to most minds, is conjured up in imagination. In contemplating the production of sensations, we fancy that a given sensation, *i.e.*, the subjective feeling, is caused by a motion of the affecting externality, or more directly by a motion of the neural substratum ; that, in fact, the motion outside of us is the stimulus, and the motion in the neural substratum the immediate cause of our sensation. Or, if we are so-called Monists, we fancy that the motion of the neural substratum is objectively the same thing as the subjective sensation ; that the sensation is a phenomenon concomitant with the neural motion, and somehow identical with it. Only we can then not understand how it happens that we find ourselves at one time on the subjective, at another time on the objective side of the phenomenon.

Now, to render the ominous mistakes involved in these suppositions transparent to all thinkers, it is only necessary to place ourselves in the correct scientific attitude. We have just seen that all existences foreign to ourselves, together with their changes and the changes and motions seemingly impressed by one such existence upon another, are in reality, one and all, appearances changing and moving within our own consciousness; are, in fact, throughout our own perceptions. This understood, let us take, for example, as the one foreign existence a vibrating string, and as the other foreign existence a living organism. We want to know how the vibrating string affects the living organism. We perceive the string and its vibrations, and we perceive also the living organism and certain vibrations or molecular motions set up in its auditory tract. This is all that immediate consciousness could possibly reveal to us under an ever so extended range of visual power. Most evidently, in this case also, the observed vibrating string and the observed living organism with its auditory tract put in functional motion are in every respect our own perceptions. It is nothing but a complex of our own perceptions that stands for the vibrating string, and it is nothing but a complex of our own perceptions that stands for the organism and the motions of its auditory tract. As regards the outside powers that compel these perceptions and their changes to arise within our mental presence, we are as completely in the dark as with regard to any kind of power. We are conscious of nothing but our own mental presence. All the rest is inference therefrom.

My ears are stopped up. I am watching a living brain, and presently I discern specific motions set going in some particular part of it. I look round and perceive a vibrating string. All these appearances are clearly nothing but perceptions within my own mental presence. Nevertheless, true to inbred and naturalised habit, I conclude that the vibrating string as a foreign existence is the cause or determining condition of the motion of the brain as a foreign existence. In truth, however, I know absolutely nothing of foreign existences as such, neither of an externally vibrating string, nor of an externally moving brain. Both vibrating string and moving brain are my intrinsic perceptions, and the foreign existences inferred as compelling causes of these my perceptions are altogether unknowable to me.

I now further, in a roundabout way, ascertain that, corresponding to this my perception of an auditory tract in motion, the foreign existence, which I infer as compelling this my special perception together with a perception of an entire living organism, is itself experiencing a series of quite different perceptions of so-called sounds. I thereupon open my own ears,

and at once also hear sounds exactly like those described to me by the inferred foreign being who had impressed me with the perception of a brain in functional motion. These sounds are my *auditory* perceptions. The vibrating string is my *visual* perception. I philosophically conclude that both auditory and visual perceptions are compelled by the same unknown foreign existence. I do *not* conclude that the vibrating string *i.e.*, my visual perception, is the cause of my auditory perceptions, *i.e.*, the sounds.

In all this there is no trace of dualism, neither between matter and mind, nor between motion and sensation, nor between mental fact and its unknown cause. Everything here is mentally fashioned, but the mental states themselves are taken for the affections of a substantial entity that is not mental, that is only known through these its phenomenal and ephemeral displays. Brain, string, vibrations, sounds are all alike perceptions of a human being, all alike effects of unconscious powers. Every existence here present to consciousness is essentially of the same kind. The sounds I hear are not more sensorial than the brain I perceive, or the vibrating string present in my mind. The brain I perceive or the vibrating string is not more material than the sounds I hear. Matter in this sense is only a name for the inferred permanence and resistibility of the unknown sense-compelling causes; motion, a name for their activity. Motion, permanence, and resistibility represent to me special states of unconscious powers, but solely as externalised effects within my own mental presence. There is in reality no dual or two-sided aspect, no concave and convex appearance of one and the same entity, no radical contrast between subject and object. It needs no standing miracle, no supernaturally pre-established harmony to bring about an inter-communication between mind and matter, between the world of thought and the world of extension. All things of which we are conscious are facts within the one mental presence of a human being. The task is to gain a full knowledge of this human being and its all-revealing mental presence.

This end in view, we must never forget that body and mind are not in any sense the same entity, much less two different entities. Body is immediately only a mental appearance. Mind a product or effect of unconscious and unknowable powers. That peculiar composition of unconscious forces of which mind is the direct effect, is by no means coincident with that entire composition of unconscious forces that compels the perception of our body. Or more intelligibly expressed: That which in an observer compels the perception of a human nervous system forms only a definite part of that which com-

pels the perception of an entire human body; and it is in what we call the nervous system that circumstantial evidence leads us to place exclusively the manifestations of the mental presence.

Nor is it true that a neural vibration, tremor, or unit of nerve-motion of any kind constitutes the objective aspect of the identical existence that subjectively viewed is forming a unit of feeling. A neural occurrence, together with its substratum, is throughout only a perception within the observer's mental presence, and is therefore of essentially the same nature as the sensation experienced by the observed individual. Both mental facts—my perception of a neural tremor, and your corresponding sensorial affection; or, to put the matter more definitely, my perception of the functioning particles of corpora quadrigemina which I am convinced are forming part of your being, and your own corresponding visual perception—are manifestations of one and the same kind, though occurring in two different individuals. They are both perceptions, and both the product of unconscious powers. Only your visual perception is *directly* the effect of the same unconscious forces which in a much more roundabout way are compelling within my mental presence the perception of functioning corpora quadrigemina. And it is in a still more roundabout way that I become at all aware that you yourself are also experiencing peculiar feelings. Indeed, only through most indirect signs is the fact of your mental experience revealed to me within my mental presence.[1]

[1] In scientific imagination we may legitimately go so far as to form the idea of one sense experiencing the movements referred to the substratum of another sense. We may imagine ourselves having the visual or tactile perception of our own auditory tract and its functional motions. But we are making a momentous mistake when we think we can imagine ourselves as experiencing a special perception, and at the same time watching, by means of this very same perception, the substratum from which it emerges. If it were possible through the right eye to perceive, for instance, a tree, and through the left eye to perceive the right optic tract and its functional motions set going by the foreign existence, then the visual experience through the left eye, *viz.*, the experience of another optic tract in function, would be produced by means of intervening contrivances in just such a roundabout way as the experience of the right optic tract, *viz.*, the perception of a tree. Different specific combinations of unconscious and unknowable powers are here each effecting its own specific perception. How then can we rightfully imagine the combination of unconscious powers that are effecting the perception of a tree to be also effecting at the same time and through the same operation the perception of an optic tract in function?

Could, finally, by the aid of any kind of contrivance, the perception of an optic tract be realised within the mental presence through its own agency, then—under this extreme supposition—the perceived optic tract with its manifesting conditions would be the sole mental existence present.

So far then as immediate consciousness is concerned, there exists indeed nothing but one single mental presence into which all particular feelings and all configurations or combinations of mental states are entering as constituent parts. This unique all-comprising consciousness is that of the perceiving and contemplating subject at the time being. It is true each of us is convinced that a multitude of other beings like ourselves are consciously existing and in possession of very similar mental faculties. But their consciousness also is a tenure in solitude. Its direct contents—the mental facts themselves—can as such never be shared by any other consciousness.

My finding out that under certain conditions your mental presence and the mental presence of others are filled at the same time with a perception singularly like the one now present to my own mind, does not entitle me to conclude that it is the same physical fact or actual phenomenon which we are all alike perceiving, but merely that the same unconscious powers which

We should not have a functioning optic tract, and also my perception of it; but only my perception of it as effected by a peculiar combination of unconscious powers. And this combination of unconscious powers would necessarily include the intervening contrivances that conveyed the impression of the optic tract to the sensory inlet. Under this combination the optic tract would be perceived in function, but the function would be set going as usual through the proper sensory channel, and would represent in consciousness the influence of the foreign existences thus acting upon our sensibility. It would never, and in no way represent the *immediate* activity of what we hypostatically call the neural substratum. That is to say, the functioning substratum as perceived by an *observing* subject, and the immediate mental effect of the function in the *observed* subject, are two totally different facts that can never be identified. Nevertheless this false identification is generally assumed as the very foundation of Psychophysics and Psychophysical Monism. The true identification of disparate appearances in nature lies in the fact that all kinds of phenomena, whether at rest or in motion, are alike realised within the one unitary mental presence of an identical human being.

It does not avail to maintain that we can accomplish in thought the identification of Psychophysical Monism. Thought, to be correct, has to represent the true conditions of being. It is only by rightly interpreting the mental presence, so that it will show itself verification-proof, that thought becomes at all valid. Therefore the perception of a neural occurrence can never be made identical through thought with its conditions of production.

However obvious when once rightly conceived, it is quite impossible to convey in words more than indications how a reader may realise in his own mind these rather complicated scientific visions. It requires much perseverance to view, for the first time correctly, an actuated system of appearances even when presented to the bodily eye. When studying striped muscle in living activity it took the present writer, who is well practised in such work, more than a month of daily labour from morning till night clearly to fix the mere statical aspect of fibres. Not till then was he able, intelligently, to follow the phenomena of functional change.

I infer as causes of my own perception are producing like effects in other individuals. The non-appreciation of this truth has caused endless confusion in philosophical discussions. We become, however, aware of the distinct creation of phenomenal existences in every separate consciousness, and of their constant new-creation from moment to moment in each consciousness, when these phenomenal existences are recognised to be produced by the unsubstantial play of ephemeral causes. It does not require much reflection to become convinced that every observer perceives a rainbow of his own, and that moreover it is from moment to moment a new rainbow that appears to each. Here phenomenal repose or statical subsistence is in the making only; it is not self-rounded and flawless as elsewhere.

But all phenomena are in truth, as appearances and as surmised entities, thus dynamically and spectrally constituted. The mental presence is the all-representing, all-condensing phenomenon *κατ' ἐξοχήν*. Into it enters the complete universe microcosmically spectred, and here it securely rests on the ever-renewed foil of personal identity. (See MIND No. XXIII.)

One more complication remains to be noticed—the perception of our own body. After what has been already stated it cannot be difficult to understand that, so far as we become aware of our own body through the common sensory channels, we stand in the same relation to it as any other observer. It is an object seen and felt, *i.e.*, a perception within our mental presence referable to the compelling influences of unconscious and unknowable powers in the same manner as any other perception.

If, besides, we find within our mental presence feelings and combinations of feelings different from those compelled by any other external existence; feelings which we have reason, notwithstanding, to refer to efficiencies inherent in the same entity we perceive as our body, then we have to construct from these particular constituents of the mental presence a special science, a science of facts accruing to the mental presence through channels different from those through which it receives its knowledge of other externalities. This peculiar class of mental ingredients may differ widely from those other mental ingredients that are acquired through the common sensory inlets; but as all mental facts, however disparate, are found to blend into one individual microcosm, there can obtain at bottom no very radical contrast between any of the constituents of a unitary consciousness thus composed. We cannot possibly discover among them a distinction sufficiently trenchant to justify us in construing a two-sided aspect of nature.

We have under all phases of consciousness to be mindful that we are immediately aware of nothing but a marvellously com-

plicated, ever-changing mental presence. Under the supposition that nothing therein is uncaused, we are striving, in explanation of the phenomenal display, to construct a consistent system of hypostatised powers as agents operating the mental appearances and their mutations. These powers we can only designate by their adequate mental signatures or effects. This we are in the habit of practically doing through mere natural impulse. It is, however, the office of science to perform the task accurately and exhaustively. We know nothing but mental facts representing the unconscious powers that cause them. But the mental presence in which everything is revealed proves itself to be the varying affection of an identically enduring being of non-mental consistency.

Working as we are all doing at one common science of truth, thinkers of all schools are entreated earnestly to weigh the simple solution here offered by the Philosophy of Organisation to one of the most ancient and obdurate perplexities of human thought. We cannot hope consciously and systematically to direct life so as to bring about a fulfilment in reality of our ideal aspirations, before having positively ascertained the true relation of our mind to our body and to the other non-mental powers of nature.

It would seem as if Idealism, logically followed up, ought to lead to results similar to those here expounded, ought intelligibly to resolve all natural phenomena into appearances within the mental presence. But Idealism never came to recognise the mental presence. It did not become aware that the veritable actuality of mind is to be found only in the momentary realising and focussing of potentialities—potentialities that are abiding within the specific combinations of its inciting and producing causes.

Nominalistic Idealism, moreover, attempted to build up the cosmos figured in feeling out of mere association of elementary mental states signifying nothing beyond themselves. It thus necessarily failed to discover the underlying system of permanent potentialities, of which the particular feelings are but so many sounded notes. It found itself incapable of explaining even the sense-derived world, the existence of which it admitted. Much less was it capable of explaining the world of personality, which in conformity with its premisses it had to deny.

Transcendental Idealism, on the contrary, raised the underlying system of permanent potentialities into the sphere of actual mentality, and was thus debarred from the possibility of establishing an efficient intercommunication with non-mental powers. Thus the world appearing, nay forcing itself into perception, remained utterly unassimilable to it, in spite of the

most audacious dialectic jugglery of its votaries; and even Kant's strenuous effort of reconciliation did not succeed in establishing a genuine and fruitful intercommunication between the intelligible and the sensible world.

Phenomenism by reflectively utilising the mental manifestations ready-made, and by seemingly abstaining from hypostatising, professes to build up the universe out of self-sustaining mental facts. In truth, however, it postulates the entire wealth of absent or latent mentality, and is thus enabled with some plausibility to perform phantasmagorically or unsubstantially what can be rightly done only with reference to an enduring system of substantial powers. It tacitly presupposes the all-comprising logical totality in which the whole potentiality of the phenomenal world is reposing, and then forces it to pass through the scattering and agitating prism of perceptibility. Let, however, the import of the "mental presence" be realised, and its explanation will prove fatal to this phantasmal cosmology.

It will be presently shown, on the other hand, what explanatory strength in this respect is contained in the Philosophy of Organisation.

It would not be difficult to show why all systems of thought have been either abortive or dualistic. It is, however, quite impossible here in so confined a space to discuss the shortcomings and sundry dualistic turns in even the leading philosophies. I will only mention once more in general that Psychophysical Monism, which expressly proclaims as its foundation the identity of the molecular motions of the functioning neural substratum with the mental state accompanying the same, has obviously seized on a wrong assumption. Every mental state presents indeed a physical aspect, but only to the perception of an observer or outsider. Or, dogmatically expressed, that which immediately causes the mental state in the *observed* subject compels also much more indirectly through intervening media and organic stimulation an entirely different mental state in the *observing* subject. This distinction forms by no means an over-subtle and useless discrimination, but is, on the contrary, of fundamental importance to physical as well as to psychical science. The fact that ever so primordial an appearance of matter or motion is, and always must be, a perception within the immensely complex mental focus of a living being, itself formed by the cumulatively condensed results of highest organisation—this plain fact excludes for evermore the possibility of correctly imagining a primitive element of extra-mental subsistence, an atom of any kind. It renders also intelligible the accruing unto the mental presence of modifi-

cations of existence previously beyond the ken of sensibility. And it affords the philosophical justification for assuming in explanation of sensible phenomena, under a partly sensible guise, efficient agents, such as the cosmic ether, which in reality are altogether extra-sensible.

The uniform reduction of all phenomena of nature to constituents of one and the same mental presence of an enduring entity that has power to compel within this mental presence the perception of its own self as an organised unity of living energies—this scientifically grounded conception opens a truly monistic view in which all ancient dualisms of philosophy are satisfactorily reconciled. Body and mind, matter and force, motion and sensation, subject and object, find all their proper place and explanation in this organic system of effect- or phenomena-producing causes.

As regards our special problem of Causation we are now in a position definitely to recognise why it is that we have no other way of unravelling its complications than by interpretation of phenomenal effects within our own mental presence. Everything beyond must necessarily be inference. We have therefore to place ourselves in favourable experimental attitudes towards the sense-compelling powers, in order to find out through the medium of our sensibilities the special conditions of the interactions of those powers, and in order to find out above all the immediate conditions under which the mental presence itself is created and operated.

EDMUND MONTGOMERY.

(To be continued.)

IV.—THE RELATION OF GREEK PHILOSOPHY TO MODERN THOUGHT.

II.

THE author of the *Leviathan* has sometimes been represented as one who carried the Baconian Method into politics and prepared the way for its more thorough application to psychology by Locke. But this view, which regards the three great leaders of English philosophy in the seventeenth century as successive links in a connected series, is a misapprehension of history which could only have arisen through leaving out of account the contemporary development of Continental speculation, and through the inveterate habit of looking on the modern distinction between empiricism and transcendentalism as a fundamental antithesis dividing the philosophers of every epoch into two opposing schools. The truth is that, if the three writers just mentioned agree in deriving knowledge solely from experience, they agree in nothing else; and that their unanimity on this one point does not amount to much, will be evident if we consider what each understood by the notion in question. With Bacon, experience was the negation of mere authority, whether taking the form of natural prejudice, of individual prepossession, of hollow phrases, or of established systems. The question how we come by that knowledge which all agree to be the most certain, is left untouched in his logic; either of the current answers would have suited his system equally well; nor is there any reason for believing that he would have sided with Mill rather than with Kant respecting the origin of mathematical axioms. With Locke, experience meant the analysis of notions and judgments into the simple data of sense and self-consciousness; and the experientialists of the present day are beyond all doubt his disciples; but the parentage of his philosophy, so far as it is simply a denial of innate ideas, must be sought, not in the *Novum Organum*, nor in any other modern work, but in the old *Organon* of Aristotle, or in the comments of the Schoolmen who followed Aristotle in protesting against the Platonism of their time, just as Locke protested against the Platonism of Descartes and Malebranche. The experience of Hobbes differs both in origin and application from either of these. With him, sensible impressions are not a court of appeal against traditional judgments, nor yet are they the ultimate elements into which all ideas may be analysed; they are the channels through which pulsating movements are conveyed into the mind, and these movements, again, represent the action of mechanical forces or

the will of a paramount authority. And he holds this doctrine, partly as a logical consequence of his materialism, partly as a safeguard against the theological pretensions which, in his opinion, are a constant threat to social order. The authority of the political sovereign is menaced on the one hand by Papal infallibility, and on the other by rebellious subjects putting forward a claim to supernatural inspiration. To the Pope, Hobbes says: "You are violating the law of nature by professing to derive from God what is really given only by the consent of men, and can only be given by them to their temporal head—the right to impose a particular religion". To the Puritan he says: "Your inward illumination is a superstitious dream, and you have no right to use it as a pretext for breaking the king's peace. Religion has really nothing to do with the supernatural; it is only a particular way of inculcating obedience to the natural conditions of social union."

Again, Hobbes differs wholly from Bacon in the deductive character of his method. His logic is the old syllogistic system reorganised on the model of mathematical analysis. Like all the great thinkers of his time, he was a geometrician and a mechanical physicist, reasoning from general to particular propositions and descending from causes to effects.[1] His famous theory of a social contract is a rational construction, not a historical narrative. But though a mathematician, he shows no traces of Platonic influence. He is therefore all the more governed by Atomist and Stoic modes of thought. He treats human nature, single and associated, as Galileo and Descartes had treated motion and space. Like them, too, he finds himself in constant antagonism to Aristotle. The description of man as a social animal is disdainfully rejected, and the political union resolved into an equilibrium of many opposing wills maintained by violent pressure from without. In ethics, no less than in physics, we find attractive forces replaced by mechanical impacts.

While the analysis of Hobbes goes much deeper than Aristotle's, the grasp of his reconstructive synthesis is wider and stronger in at least an equal proportion. Recognising the good of the whole as the supreme rule of conduct, he gives a new interpretation to the particular virtues, and disposes of the theory which made them a mean between two extremes no less effectually than his contemporaries had disposed of the same theory in its application to the elementary constitution of matter. And just as they were aided in their revolt against Aristotle by the

[1] This is well brought out in a remarkable series of articles on the Philosophy of Hobbes recently published by Tönnies in the *Vierteljahrsschrift für wissenschaftliche Philosophie.*

revival of other Greek systems, so also was he. The identification of justice with public interest, though commonly attributed to Epicurus alone, was, like materialism, an idea shared by him with Stoicism, and was probably impressed on modern thought by the weight of their united authority. And when we find the philosopher of Malmesbury making public happiness consist in order and tranquillity, we cannot but think that this was a generalisation from the Stoic and Epicurean conceptions of individual happiness; for both embrace the same ideal of passionless repose.

On the other hand, this substitution of the social for the personal integer involves a corresponding change in the valuation of personal feelings as such. What the passions had been to later Greek philosophy, that the individual soul became to Hobbes, something essentially infinite and insatiable, whose desires grow as they are gratified, whose happiness, if such it can be called, is not a condition of stable repose but of perpetual movement and unrest. Here, again, the analogy between physics and ethics obtains. In both there was an original opposition between the idea of a limit and the idea of infinite expansion. In both the conflict was bequeathed by ancient to modern thought. Those who embraced both studies have always had a certain tendency to take the same side in each; but this tendency has been more distinctly marked in modern than in ancient systems. The successors of Aristotle, while falling back on an older cosmology, had retained his limiting method in their speculations on man. If he and Plato before him had imprisoned the formless and turbulent terrestrial elements within a uniform and eternal sphere of crystal, they imposed a similar restraint on the desires and emotions, confining them within a barrier of reason which, when once erected, could never be broken through. And if, before the Athenian school arose, there had been a physical philosophy of the infinite or, as its impugners called it, the indefinite, there was, corresponding to it, a philosophy of the infinite or indefinite in ethics, represented, not indeed by professional moralists, but by rhetoricians and men of the world. Their ideal was not the contented man, but the popular orator or the despot who revels in the consciousness of power—the ability to satisfy his desires, whatever they may be. And the extreme consequence of this principle is drawn by Plato's Callicles when he declares that true happiness consists in nursing one's desires up to the highest point at which they can be freely indulged; while his ideal of character is the superior individual who sets at naught whatever restraints have been devised by a weak and timid majority to protect themselves against him.

The Greek love of balanced antithesis and circumscribing

form triumphed over the infinite in both fields; and although the ground won in physics was lost again for a time through a revival of old theories, this was because true Hellenism found its only congenial sphere in ethics, and there the philosophy of Plato continued to reign supreme. With Christianity, there came a certain inversion of parts. The external universe again became subjected to narrow limitations, and the *flammantia mœnia mundi* beyond which Epicurus had dared to penetrate, were raised up once more and guarded by new terrors as an impassable barrier to thought. But infinity took refuge within the soul; and, while in this life a sterner self-control than even that of Stoicism was enjoined, perspectives of illimitable delight in another life were disclosed. Finally, at the Renaissance every barrier was simultaneously overthrown, and the accumulated energies of western civilisation expatiated over a field which, if it was vast in reality, was absolutely unbounded in imagination. Great as were the achievements of that age, its dreams were greater still; and what most excites our wonder in the works of its heroes is but the fragment of an unfinished whole. The ideal of life set up by Aristotle was, like his conception of the world, contradicted in every particular; and the relative positions assigned by him to act and power were precisely reversed. It has been shown how Shakespeare reflected the Platonism of his contemporaries: he reflected also the fierce outburst of their ambition, and in describing what they would dare, to possess solely sovereign power and masterdom or wear without corrival all the dignities of honour, he borrowed almost the very words used by Euripides to express the feelings encouraged by some teachers of his time. The same spirit is exhibited a generation later in the dramas of Calderon and Corneille, before their thoughts were forced into a different channel by the stress of the Catholic reaction; while its last and highest manifestation is the sentiment of Milton's ruined archangel that to reign in hell is better than to serve in heaven. Thus, when Hobbes reduces all the passions to modes of the fundamental desire for power, he does but give the scientific theory of that which stands proclaimed in more thrilling accents by the noblest poetry of his age.

Where no danger could deter from the pursuit of power, no balancing of pain with pleasure availed to quench the ardour of desire. With full knowledge that violent delights have violent ends and in their triumph die, the fateful condition was accepted. Not only did Giordano Bruno, in conscious parallelism with his theory of matter, declare that without mutation, variety and vicissitude nothing would be agreeable, nothing good, nothing delightful, that enjoyment consists solely in transition and

movement, and that all pleasure lies midway between the painful longing of fresh appetite and the sadness of its satiation and extinction[1]; but the sedater wisdom of Bacon, in touching on the controversy between Callicles and Socrates, seems to incline towards the side of the former; and in all cases warns men not to make too much of the inconveniences attendant on pleasure, but "so to procure serenity as they destroy not magnanimity".[2]

These, then, were the principal elements of the philosophical Renaissance. First, there was a certain survival of Aristotelianism as a method of comprehensive and logical arrangement. Then there was the new Platonism, bringing along with it a revival of either Alexandrian or mediaeval pantheism, and closely associated with geometrical studies. Thirdly, there was the old Greek Atomism, as originally set forth by Democritus or as re-edited by Epicurus, traditionally unfavourable to theology, potent alike for decomposition and reconstruction, confirmed by the new astronomy, and lending its method to the reformation of mathematics; next the later Greek ethical systems; and finally the formless idea of infinite power which all Greek systems had, as such, conspired to suppress, but which, nevertheless, had played a great part in the earlier stages of Greek speculation both physical and moral.

On these foundations the lofty edifice of Spinozism was reared; out of these materials its composite structure was built; and without a previous study of them it cannot be understood.

Whether Spinoza ever read Plato is doubtful. One hardly sees why he should have neglected a writer whose works were easily accessible, and at that time very popular with thinking minds. But whether he was acquainted with the *Dialogues* at first hand or not, Plato will help us to understand Spinoza, for it was through the door of geometry that he entered philosophy, and under the guidance of one who was saturated with the Platonic spirit; so far as Christianity influenced him, it was through elements derived from Plato; and his metaphysical method was one which, more than any other, would have been welcomed with delight by the author of the *Meno* and the *Republic*, as an attempt to realise his own dialectical ideal. For Spinozism is, on the face of it, an application of geometrical reasoning to philosophy, and especially to ethics. It is also an attempt to prove transcendentally what geometricians only assume—the necessity of space. Now, Plato looked on geometrical demonstration as the great type of certainty, the scientific completion

[1] *Spaccio della Bestia Trionfante, sub in.*
[2] *Advancement of Learning*, Ellis & Spedding, III., 428.

of what Socrates had begun by his interrogative method, the one means of carrying irrefragable conviction into every department of knowledge, and more particularly into the study of our highest good. On the other hand he saw that geometricians assume what itself requires to be demonstrated; and he confidently expected that the deficiency would be supplied by his own projected method of transcendental dialectics. Such at least seems to be the drift of the following passage: "When I speak of the division of the intellectual, you will also understand me to speak of that knowledge which reason herself attains by the power of dialectic, using the hypotheses not as first principles, but only as hypotheses—that is to say as steps and points of departure into a region which is above hypotheses, in order that she may soar beyond them to the first principle of the whole; and clinging to this and then to that which depends on this, by successive steps she descends again without the aid of any sensible object, beginning and ending in ideas".[1]

The problem, then, which Spinoza set himself was, first, to account for the fundamental assumptions of all science, and more particularly of geometry, by deducing them from a single self-evident principle; and then to use that principle for the solution of whatever problems seemed to stand most in need of its application. And, as usually happens in such adventurous enterprises, the supposed answer of pure reason was obtained by combining or expanding conceptions borrowed without criticism from pre-existing systems of philosophy.

Descartes had already accomplished a great simplification of the speculative problem by summing up all existence under the two heads of extension and thought. It remained to account for these, and to reduce them to a single idea. As we have seen, they were derived from Greek philosophy, and the bond which was to unite them must be sought for in the same direction. It will be remembered that the systems of Plato and Aristotle were bounded at either extremity by a determinate and by an indeterminate principle. With the one, existence ranged between the Idea of Good at the upper end of the scale and empty space at the lower; with the other, between absolute Thought and First Matter. It was by combining the two definite terms, space and thought, that Descartes had constructed his system; and after subtracting these the two indefinite terms remained. In one respect they were even more opposed to each other than were the terms with which they had been respectively associated. The Idea of Good represented unity, identity, and constancy, as against plurality, difference, and change; while Aristotle's Matter

[1] *Republic* VI. 511, in Jowett's Trans. III. 398.

was by its very definition multiform, fluctuating, and indeterminate. Nevertheless, there were equally important analogies traceable between them. No very clear account could be given of either, and both were customarily described by negatives. If Matter fell short of complete existence, the Good transcended all existence. If the one was a universal capacity for assuming Forms, the other was the source whence all Forms proceeded. When the distinctive characteristics of an individual were thought away, the question might well be mooted into which principle it would return. The ambiguous use of the word Power contributed still further to their identification, for it was not less applicable to the receptive than to the productive faculty. Now, we have just seen into what importance the idea of Power suddenly sprang at the Renaissance: with Bruno it was the only abiding reality of nature; with Hobbes it was the only object of human desire.

Another term occupying a very large place in Aristotle's philosophy was well adapted to mediate between and eventually to unite the two speculative extremes. This was Substance; in logic the subject of predication, in metaphysics the substratum of qualities, the *οὐσία* or Being of the Ten Categories. Now, First Matter might fairly claim the position of a universal subject or substance, since it was invested with every sensible quality in turn, and even, as the common element of all Forms, with every thinkable quality as well. Aristotle himself had finally pronounced for the individual compound of Form and Matter as the true substance. Yet he also speaks as if the essential definition of a thing constituted the thing itself; in which case Form alone could be the true subject; and a similar claim might be put forward on behalf of the Plotinian One.

Such were the *a priori* elements which a historical synthesis had prepared to satisfy the want of a metaphysical Absolute. Let us now see what result would follow when the newly-recovered idea of space was subjected to a metaphysical analysis. Extension is both one and infinite. No particular area can be conceived apart from the whole which both contains and explains it. Again, extension is absolutely homogeneous; to whatever distance we may travel in imagination there will still be the same repetition of similar parts. But space, with the Cartesians, meant more than a simple juxtaposition of parts; having been made the essence of matter, it was invested with mechanical as well as with geometrical properties. The bodies into which it resolved itself were conceived as moving, and as communicating their movement to one another through an unbroken chain of causation in which each constituted a single link, determining and determined by the rest; so that, here also, each part was explained

by reference to an infinite whole, reproducing its essence, while exempt from the condition of circumscribed existence. We can understand, then, that when the necessity of accounting for extension itself once became felt, the natural solution would be to conceive it as holding the same relation to some greater whole which its own subdivisions held to their sum total; in other words it should be at once a part, an emanation, and an image of the ultimate reality, which in turn could be only conceived as its multiplication *ad infinitum*.

The direction in which a method for explaining Thought would most readily suggest itself, was given both in the proper form of thinking, and in its presumed parallelism with extension. Speaking philosophically, to think was to reason, and to reason was to subsume a lower under a higher or more universal concept, to resolve all subjects into a single predicate, or to connect all predicates with a single subject; and owing to Aristotle's confusion of formal with efficient causes, this process was considered identical with that by which we rise to the knowledge of determining antecedents in the external world.

Spinoza gathered up all the threads of speculation thus made ready for his grasp, when he defined God as a substance consisting of infinite attributes, each of which expresses his infinite and eternal essence; subsequently adding that the essence here spoken of is Power, and that two of the infinite attributes are Extension and Thought, whereof the particular things known to us are modes. If, now, we ask why there should be such an existence as space, the answer is because existence, being infinite, must necessarily include every conceivable thing. The argument is strikingly like a principle of the Epicurean philosophy, and may well have been suggested by it. According to Lucretius, the appearance of design in our world need not be attributed to creative intelligence, because infinite atoms moving in infinite manners through infinite time, must at length arrive, after a comprehensive series of experiments, at the present frame of things[1]; and the same principle is invoked on a smaller scale to account for the origin of organised beings, of memory, and of civil society.[2] In both systems infinite space is the root-conception; but what Lucretius had legitimately used to explain becoming, Spinoza illegitimately applies to the elucidation of being. At one stroke all empirical knowledge is placed on an

[1] —— Quia multimodis, multis, mutata, per omne
Ex infinito vexantur percita plagis,
Omne genus motus, et cœtus experiundo,
Tandem deveniunt in taleis disposituras,
Qualibus haec rebus consistit summa creata.—I., 1023-7.

[2] V. 853, IV. 780-800, V. 1025.

a priori foundation. By assuming unlimited credit at the bank of the universe we entitle ourselves to draw a cheque for any particular amount. Thus the idea of infinite attributes is no mere collateral speculation, but forms an essential element of Spinozism. The known varieties of existence are, so to speak, surrounded, supported, and fixed in their places by the endless multitude of the unknown. And this conception of being as absolutely infinite, is another proof of Spinoza's Platonic tendencies, for it involves the realisation of an abstract idea, that is to say, of Being, which the philosopher treats as something more comprehensive than the facts of consciousness whence it is derived.

The relation of Spinoza's Substance to its attributes is ambiguous. It is at once their cause, their totality, and their unity. The highly elastic and indefinite term Power helped these various aspects to play into and replace one another according to the requirements of the system. It is associated with the subjective possibility of multiplying imaginary existences to any amount; with the causal energy in which existence originates; and with the expansiveness characteristic alike of Extension and of Thought. For the two known attributes of the universal substance are not simply related to it as co-predicates of a common subject; they severally express its essential Power, and are, to that extent, identical with one another. But when we ask, How do they express Power? the same ambiguity recurs. Substance is revealed through its attributes as a cause through its effects; as an aggregate through its constituents; and as an abstract notion through its concrete embodiments. Thus Extension and Thought are identical through their very differences, since these illustrate the versatility of their common source, and at the same time jointly contribute to the realisation of its perfection. But, for all practical purposes, Spinoza deals only with the parallelism and resemblance of the attributes. We have to see how he establishes it, and how far he was helped in so doing by the traditions of Greek philosophy.

It has been already shown how Extension, having become identified with matter, took on its mechanical qualities, and was conceived as a connected series of causes or modes of motion. The parallel found by Spinoza for this series is the chain of reasons and consequents forming a demonstrative argument; and here he is obviously following Aristotle, who although ostensibly distinguishing between formal and efficient causes, hopelessly confounds them in the second book of his *Posterior Analytics*. We are said to understand a thing when we bring it under a general rule, and when we discover the mechanical

agency which produces it. For instance, we may know that a particular man will die, either from the fact that all men are mortal, or from the fact that he has received a fatal wound. The general rule, however, is not the cause of what will happen, but only the cause of our knowing that it will happen; and knowledge of the rule by no means carries with it a knowledge of the efficient cause, as we see in the case of gravitation and other natural forces whose *modus operandi* is still a complete mystery. What deceived Aristotle was partly his false analysis of the syllogism which he interpreted as the connexion of two terms by the interposition of a middle answering to the causal nexus of two phenomena; and partly his conception of the universe as a series of concentric spheres through which movement is transmitted from without, thus combining the two ideas of notional comprehension and mechanical causation. Be this as it may, Spinoza takes up the Aristotelian identification of logical with dynamical connexion, and gives it the widest possible development. For the Stagirite would not, at any rate, have dreamed of attributing any but a subjective existence to the demonstrative series, nor of extending it beyond the limits of our actual knowledge. Spinoza, on the other hand, assumes that the whole infinite chain of material causes is represented by a corresponding chain of eternal ideas; and this chain he calls the infinite intellect of God. Here, besides the necessities of systematisation, the influence of mediaeval realism is plainly evident. For, when the absolute self-existence of Plato's Ideas had been surrendered in deference to Aristotle's criticism, a home was still found for them by Plotinus in the eternal Nous, and by the Christian Schoolmen in the mind of God; nor did such a belief present any difficulties so long as the divine personality was respected. The pantheism of Spinoza, however, was absolute, and excluded the notion of any but a finite subjectivity. Thus the infinite intellect of God is an unsupported chain of ideas recalling the theory at one time imagined by Plato.[1] Or its existence may be merely what Aristotle would have called potential; in other words, Spinoza may mean that reasons will go on evolving themselves so long as we choose to study the dialectic of existence, always in strict parallelism with the natural series of material movements constituting the external universe; and just as this is determined through all its parts by the totality of extension, or of all matter (whether moving or motionless) taken together, so also at the summit of the logical series stands the idea of God, from whose definition the demonstration of every lesser idea necessarily follows. It

[1] See the passage from the *Republic* quoted above.

is true that in a chain of connected energies the antecedent, as such, must be always precisely equal to the consequent; but apparently this difficulty did not present itself to Spinoza, nor need we be surprised; for Kant, coming a century later, was still so imbued with Aristotelian traditions as, similarly, to derive the category of Cause and Effect from the relation between Reason and Consequent in hypothetical propositions.[1]

Meanwhile the parallelism between Thought and Extension was not exhausted by the identification just analysed. Extension was not only a series of movements; it still remained an expression for coexistence and adjacency. Spinoza, therefore, felt himself obliged to supply Thought with a correspondingly continuous quality. It is here that his chief originality lies, here that he has been most closely followed by the philosophy of our own time. Mind, he declares, is an attribute everywhere accompanying matter, co-extensive and co-infinite with space. Our own animation is the sum or the resultant of an animation clinging to every particle that enters into the composition of our bodies. When our thoughts are affected by an external impulse, to suppose that this impulse proceeds from anything material is a delusion; it is produced by the mind belonging to the body which acts on our body; or rather the two actions are only different aspects of a single process. Spinoza has clearly explained the doctrine of animal automatism, and shown it to be perfectly conceivable; but he has entirely omitted to explain how the parallel influence of one thought (or feeling) on another is to be understood; for although this too is spoken of as a causal relation, it seems to be quite different from the logical concatenation described as the infinite intellect of God; and to suppose that idea follows from idea like movement from movement would amount to a complete materialisation of mind; while our philosopher would certainly have repudiated Mr. Shadworth Hodgson's theory that states of consciousness are only connected through their extended substratum as the segments of a mosaic picture are held together by the underlying surface of masonry.

The analogy between Thought and Extension under the two aspects of necessary connexion and mere contingent relation in coexistence or succession was, in truth, more interesting to its author as a basis for his ethical than as a development of his metaphysical speculation. The two orders of relations represent, in their distinction, the opposition of science to opinion or imagination, the opposition of dutiful conviction to blind or selfish

[1] The tendency of logicians is now, contrariwise, to force reasoning into parallelism with mathematical physics by interpreting the proposition as an equation between subject and predicate.

impulse. Spinoza borrows from the Stoics their identification of volition with belief; but in working out the consequences of this principle it is of Plato rather than of the Stoics that he reminds us. The passions are in his system what sense, imagination and opinion were in that of the Athenian idealist; and his ethics may almost be called the metaphysics of the *Republic* turned outside in. Joy, grief and desire are more or less imperfect perceptions of reality—a reality not belonging to the external world but to the conscious subject itself. When Spinoza traces them to a consciousness or expectation of raised or lowered power, we recognise the influence of Hobbes; but when, here as elsewhere, he identifies power with existence, we detect a return to Greek forms of thought. The great conflict between illusion and reality is fought out once more; only this time it is about our own essence that we are first deceived and then enlightened. If the nature and origin of outward things are half revealed, half concealed by sense and imagination, our emotions are in like manner the obscuring and distorting medium through which we apprehend our inmost selves, and whatever adds to or takes away from the plenitude of our existence; and what science is to the one, morality and religion are to the other.

It is remarkable that while Spinoza was giving a new application to the Platonic method, another Cartesian, Malebranche, was working it out more strictly on the old lines of speculative research. The *Recherche de la Vérité* of this unjustly neglected thinker is a methodical account of the various subjective obstacles which impede our apprehension of things as they really exist, and of the means by which it may be facilitated. Here also, attention is concentrated on the subjective side of philosophy; and if the mental processes selected for study are of theoretical rather than practical interest, we may probably attribute this to the circumstance that every ethical question was already decided for Malebranche by the Church whose orders he had assumed. But it was not merely in the writings of professed philosophers that the new aspect of Platonism found expression. All great art embodies in one form or another the leading conceptions of its age; and the latter half of the seventeenth century found such a manifestation in the comedies of Molière. If these works stand at the head of French literature, they owe their position not more to their author's brilliant wit than to his profound philosophy of life; or rather we should say that with him wit and philosophy are one. The comic power of Shakespeare was shown by resolving the outward appearances of this world into a series of dissolving illusions. Like Spinoza and Malebranche, Molière turns the illusion in, showing what perverted opinions men form of themselves and others, through

misconceptions and passions either of spontaneous growth or sedulously fostered by designing hands. Society, with him, seems almost entirely made up of pretenders and their dupes, both characters being not unfrequently combined in the same person, who is made a victim through his desire to pass for what he is not and cannot be. And this is what essentially distinguishes the art of Molière from the New Comedy of Athens, which he, like other moderns, had at first felt inclined to imitate until the success of the *Précieuses Ridicules* showed him where his true opportunities lay. For the New Comedy was Aristotelian where it was not simply humanist; that is to say, it was an exhibition of types like those sketched by Aristotle's disciple, Theophrastus, and already prefigured in the master's own *Ethics*. These were the perennial forms in a world of infinite and perishing individual existences, not concealed behind phenomena, but incorporated in them and constituting their essential truth. The Old Comedy is something different again; it is prae-philosophic, and may be characterised as an attempt to describe great political interests and tendencies through the medium of myths and fables and familiar domesticities, just as the old theories of nature, the old lessons of practical wisdom, and the first great national chronicles had been thrown into the same homely form.[1]

The purely intellectual view of human nature, the definition of mind in terms of cognition, is one more fallacy from which Aristotle's teaching, had it not fallen into neglect or contempt, might have guarded Spinoza. Nevertheless, his parallelism between passion and sensuous perception saves him from the worst extravagances of his Greek predecessors. For the senses, however much they might be maligned, never were nor could be altogether rejected; while the passions met with little mercy from Plato and with none from the Stoics, who considered them not only unnecessary but even unnatural. Spinoza more wisely sees in them assertions, however obscure and confused, of the will to be and grow which constitutes individual existence. And he sees that they can no more be removed by pointing out their evil consequences than sense-impressions can be abolished by proving their fallaciousness. On the other hand, when Spinoza speaks as if one emotion could only be conquered or expelled by another emotion, we must not allow his peculiar phraseology to conceal from us the purely intellectual character of his whole ethical system. What he really holds is that emotion can be overcome by reason or better knowledge, be-

[1] Greek tragedy is just the reverse—an expansion of the old patriarchal relations into a mould fitted to receive the highest thought and feeling of a civilised age.

cause it is itself an imperfect cognition. Point by point, an analogy—or something more than an analogy—is made out between the errors of sensuous perception joined to imagination, and the errors of our spontaneous efforts after happiness or self-realisation. Both are imposed on us from without, and neither can be got rid of by a simple act of volition. Both are affected by illusions of perspective: the nearer object of desire, like the nearer object of perception, assuming a disproportionate place in the field of view. In both, accidental contiguity is habitually confounded with causation; while in both the assignment of causes to effects, instead of being traced back through an infinite series of antecedents, stops short with the antecedent nearest to ourselves. If objects are classified according to their superficial resemblances or the usages of common language, so also are the desires sustained and intensified by imitation and rivalry. By parity of reasoning, moral education must be conducted on the same lines as intellectual education. First, it is shown how our individual existence, depending as it does on forces infinitely exceeding our own, is to be maintained. This is chiefly done by cultivating friendly relations with other men; probably, although Spinoza does not himself make the comparison, on the same principle as that observed in the mutual assistance and rectification of the senses, together with their preservation by means of verbal signs. The misleading passions are to be overcome by discovering their origin; by referring the pleasures and pains which produce them to the right causes; by calling in thought to redress the balance of imagination; by dividing the attention among an infinite number of causes; finally, by demonstrating the absolute necessity of whatever actions excite them, and classifying them according to their relations, in the same way that the phenomena of the material world are dealt with when subjected to scientific analysis.

So far Spinoza, following the example of Stoicism, has only studied the means by which reason conquers passion. He now proceeds to show, in the spirit of Plato or of Platonic Christianity, how far superior to the pleasures of sense and opinion are those afforded by true religion—by the love of God and the possession of eternal life. But, here also, as in the Greek system, logic does duty for emotion. The love of God means no more than viewing ourselves as filling a place in the infinite framework of existence, and as determined to be what we are by the totality of forces composing it. And eternal life is merely the adjustment of our thoughts to the logical order by which all modes of existence are deducible from the idea of infinite power.

Thus, while Spinoza draws to a head all the tendencies in-

herited from Greek philosophy, borrowing from the early physicists their necessarianism; from the Atomists, their exclusion of final causes, their denial of the supernatural, and their infinite worlds; from the Athenian school, their distinction between mind and body and between reason and sense; from Aristotle, his parallelism between causation and syllogism; from the Epicureans, their vindication of pleasure; and from the Stoics, their identification of belief with action, their conquest of passion and their devotion to humanity;—it is to the dominant Platonism of the seventeenth century that his system owes its foundation, its development, and its crown; for he begins by realising the abstract conception of being, and infers its absolute infinity from the misleading analogy of space which is not an abstraction at all; deduces his conclusions according to the geometrical method recommended by Plato; and ends like Plato, by translating dialectic formulas into the emotional language of religious faith.

From this grand synthesis, however, a single element was omitted; and, like the uninvited guest of fairy tradition, it proved strong enough singly to destroy what had been constructed by the united efforts of all the rest. This was the sceptical principle, the critical analysis of ideas, first exercised by Protagoras, made a new starting-point by Socrates, carried to perfection by Plato, supplementing experience with Aristotle, and finally proclaimed in its purity as the sole function of philosophy by an entire school of Greek thought.

Notwithstanding the sterility commonly associated with mere negation, it was this which, of all the later Greek schools, possessed the greatest powers of growth. Besides passing through more than one stage of development on its own account, Scepticism imposed serious modifications on Stoicism, gave birth to Eclecticism, and contributed to the establishment of Neo-Platonism. The explanation is not far to seek. The more highly organised a system is, the more resistance does it offer to change, the more does its transmission tend to assume a rigidly scholastic form. To such dogmatism the Sceptics were, on principle, opposed; and by keeping the problems of philosophy open, they facilitated the task of all who had a new solution to offer; while mind and its activities being, to some extent, safe from the universal doubt, the sceptical principle spontaneously threw back thought on a subjective instead of an objective synthesis of knowledge—in other words, on that psychological idealism the pregnancy and comprehensiveness of which are every day becoming more clearly recognised. And we shall now see how the same fertilising power of criticism has been manifested in modern times as well.

The sceptical philosophy, already advocated in the Middle Ages by John of Salisbury, was, like every other form of ancient thought, revived at the Renaissance, but only under the very superficial form which infers from the coexistence of many divergent opinions that none of them can be true. Even so, however, it led Montaigne to sounder notions of toleration and humanity than were entertained by any of his contemporaries. With Bacon, and still more with Descartes, it also appears as the necessary preparation for a remodelling of all belief; but the great dogmatic systems still exercised such a potent influence on both those thinkers that their professed demand for a new method merely leads up to an altered statement of the old unproved assumptions.

Meanwhile the old principle of universal doubt could no longer be maintained in presence of the certainties already won by modern science. Man, in the time of Newton, had, as Pope tersely puts it, "too much knowledge for the sceptic side". The problem was not how to establish the reality, but how to ascertain the origin and possible extent of that knowledge. The first to perceive this, the first to evolve criticism out of scepticism, and therefore the real founder of modern philosophy, was Locke. Nevertheless, even with him, the advantage of studying the more recent in close connexion with the earlier developments of thought does not cease; it only enters on a new phase. If he cannot, like his predecessors, be directly affiliated to one or more of the Greek schools, his position can be illustrated by a parallel derived from the history of those schools. What Arcesilaus and Carneades had been to Socrates and his successors, that Locke was in a large measure to Bacon and the Cartesians. He went back to the initial doubt which with them had been overborne by the dogmatic reaction, and insisted on making it a reality. The spirit of the *Apologia* is absent from Plato's later dialogues, only to reappear with even more than its original power in the teaching of the New Academy. And, in like manner, Descartes' introspective method, with its demand for clear ideas, becomes, in the *Essay concerning Human Understanding*, an irresistible solvent for the psychology and physics of its first propounder. The doctrine of innate ideas, the doctrine that extension is the essence of matter, the doctrine that thought is the essence of mind, the more general doctrine, held also by Bacon, that things have a discoverable essence whence all their properties may be deduced by a process analogous to mathematical reasoning,—all collapsed when brought to the test of definite and concrete experience. We have here, indeed, something comparable not only to the scepticism of the New Academy, but also to the Aristotelian criticism of Plato's metaphysics; and at

first sight it might seem as if the Peripatetic philosophy was destined once more to regain the position taken from it by the resuscitation of its ancient foe. But Locke was not inclined to substitute one form of scholasticism for another. By applying the analytical method of Atomism to knowledge itself, he created a weapon equally fatal to the two competing systems. Under his dissection the concrete individual substance of the one vanished no less completely than the universal ideas of the other. Nothing remained but a bundle of qualities held together by a subjective bond.

Similarly, in political science the analytical method of assuming civil government to result from a concurrence of individual wills, which with Hobbes had served only to destroy ecclesiastical authority, while leaving intact and even strengthening the authority of secular rulers, was reinterpreted by Locke as a negation of all absolutism whatever.

It is interesting to observe how, here also, the positive science of the age had a large share in determining its philosophic character. Founded on the discovery of the earth's true shape, Aristotle's metaphysics had been overthrown by the discovery of the earth's motion. And now the claims of Cartesianism to have furnished an exact knowledge of matter and a definition of it whence all the facts of observation could be deduced *a priori*, were summarily refuted by the discovery of universal gravitation. The Cartesians complained that Newton was bringing back the occult qualities of the Schoolmen; but the tendency of bodies to move towards one another proved as certain as it was inexplicably mysterious. For a time, the study of causes was superseded by the study of laws; and the new method of physical science moved in perfect harmony with the phenomenism of Locke. One most important consequence of this revolution was to place the new Critical philosophy on a footing quite different from that occupied by the ancient sceptics. Both restricted certain knowledge to our own states of consciousness; but it now appeared that this might be done without impeaching the value of accepted scientific conclusions, which was more than the Academic philosophy would have admitted. In other words, granting that we were limited to phenomena, it was shown that science consisted in ascertaining the relations of these phenomena to one another instead of to a problematic reality lying behind them; while, that such relations existed and were, in fact, part of the phenomena themselves, was what no sceptic could easily deny.

Nevertheless in each case subjective idealism had the effect of concentrating speculation, properly so called, on ethical and practical interests. Locke struck the keynote of eighteenth

century philosophy when he pronounced morality to be "the proper science and business of mankind in general".[1] And no sooner had morality come to the front than the significance of ancient thought again made itself apparent. Whether through conscious imitation, or because the same causes brought about the same effects, ethical inquiries moved along the lines originally laid down in the schools of Athens. When rules of conduct were not directly referred to a divine revelation, they were based either on a supposed law of nature, or on the necessities of human happiness, or on some combination of the two. Nothing is more characteristic of the eighteenth century than its worship of nature. Even the theology of the age is deeply coloured by it; and with the majority of those who rejected theology it became a new religion. But this sentiment is demonstrably of Greek origin, and found its most elaborate, though not its most absolute expression in Stoicism. The Stoics had inherited it from the Cynics, who held the faith in greater purity; and these, again, so far as we can judge, from a certain Sophistic school, some fragments of whose teaching have been preserved by Xenophon and Plato; while the first who gave wide currency to this famous abstraction was, in all probability, Heracleitus. To the Stoics, however, is due that intimate association of naturalism with teleology which meets us again in the philosophy of the last century, and even now wherever the doctrine of evolution has not been thoroughly accepted. It was assumed, in the teeth of all evidence, that nature bears the marks of a uniformly beneficent design, that evil is exclusively of human origin, and that even human nature is essentially good when unspoiled by artificial restrictions.

Yet if teleology was, in some respects, a falling-off from the rigid mechanicism first taught by the prae-Socratic schools and then again by the Cartesian school, in at least one respect it marked a comparative progress. For the first attempts made both by ancient and modern philosophy to explain vital phenomena on purely mechanical principles were altogether premature; and the immense extension of biological knowledge which took place subsequently to both, could not but bring about an irresistible movement in the opposite direction. The first to revive teleology was Leibniz, who furnished a transition from the seventeenth to the eighteenth century by his monadology. In this, Atomism is combined with Aristotelian ideas just as it had previously been combined with Platonic ideas by Descartes. The movement of the atoms is explained by their aspiration after a more perfect state instead of by mechanical pressure.

[1] *Essay*, Bk. iv. ch. 12.

But while Leibniz still relies on the ontological argument of Descartes to prove the existence of God, this was soon abandoned, along with the cosmological argument, for the argument from design, which was also that used by the Stoics; while in ethics the fitness of things was substituted for the more mechanical law of self-preservation, as the rule of conduct; and the subjection of all impulse to reason was replaced by the milder principle of a control exercised by the benevolent over the malevolent instincts. This was a very distinct departure from the Stoic method, yet those who made it were more faithful to teleology than Stoicism had been; for to condemn human feeling altogether was implicitly to condemn the work of nature or of God.

The other great ethical method of the eighteenth century, its hedonism, was closely connected with the sceptical movement in speculative philosophy, and like that received an entirely new significance by becoming associated with the idea of law. Those who isolate man from the universe are necessarily led to seek in his interests as such the sole regulator of his actions, and their sole sanction in the opinion of his fellows. Protagoras went already so far, notwithstanding his unwillingness to recognise pleasure as the supreme end; and in the system of his true successor, Aristippus, the most extreme hedonism went hand in hand with the most extreme idealism; while with Epicurus, again, both are tempered by the influence of naturalism imposing on him its conceptions of objective law alike in science and in practice. Still his system leaned heavily to the side of self-gratification pure and simple; and it was reserved for modern thought to establish a complete equilibrium between the two competing tendencies of Greek ethics. This has been effected in Utilitarianism; and those critics are entirely mistaken who, like M. Guyau, regard it as a mere reproduction of Epicureanism. It might with full as much reason be called a modern version of Stoicism. The idea of humanity is essentially Stoic; to work for the good of humanity was a Stoic precept; and to sacrifice one's own pleasure for that higher good is a virtue which would have satisfied the most rigorous demands of a Cleanthes, an Epictetus, or an Aurelius.

Utilitarianism agrees with the ancient hedonism in holding pleasure to be the sole good and pain the sole evil. Its adherents also, for the most part, admit that the desire of the one and the dread of the other are the sole motives to action; but, while making the end absolutely universal and impersonal, they make the motive into a momentary impulse without any necessary relation to the future happiness of the agent himself. The good man does his duty because doing it gives him pleasure,

or because the failure to do it would give him pain, at the moment; although he knows that a contrary course would save him from greater pain or win him greater pleasure hereafter. No accurate thinker would call this acting from a selfish or interested motive; nor does it agree with the teaching of Epicurus. Were all sensitive beings to be united in a single organism, then, on utilitarian principles, self-interest, interpreted in the sense of seeking its own preservation and pleasure, would be the only law that the individualised aggregate could rationally obey. But the good of each part would be rigorously subordinated to the good of the whole; and utilitarian morality desires that we should act as if this hypothesis were realised, at least in reference to our own particular interests. Now, the idea of humanity as forming such a consolidated whole is not Epicurean. It belongs to the philosophy which always reprobated pleasure precisely because its pursuit was associated with the dereliction of public duty and with bitter rivalry for the possession of what, by its very nature, existed only in limited quantities, while the demand for it was unlimited or at any rate far exceeded the supply. According to the Stoics, there was only one way in which the individual could study his private interest without abandoning his position as a social being, and this was to find it exclusively in the practice of virtue. But virtue and public interest remained mere forms scantily supplemented by appeals to the traditional morality, until the idea of generalised happiness, of pleasure diffused through the whole community, came to fill them with substance and life. It has also to be observed that the idea of utility as a test of moral goodness is quite distinct from hedonism. Plato proclaims in the most unequivocal terms that actions must be estimated by their consequences instead of by the feelings of sympathy or antipathy which they excite; yet no one could object more strongly to making pleasure the end of action. Thus, three distinct doctrines seem to converge in modern English ethics, of which all are traceable to Greek philosophy, but only one to Epicureanism in particular, and not ultimately to that but to the older systems whence it sprang.

And here we unexpectedly find ourselves confronted by a new relation between ancient and modern thought. Each acts as a powerful precipitant on the other, dissolving what might otherwise have passed for inseparable associations, and combining elements which a less complete experience might have led us to regard as necessarily incompatible with one another. The instance just analysed is highly significant; nor does it stand alone. Modern spiritualists often talk as if morality was impossible apart from their peculiar metaphysics. But the Stoics, confessedly the purest moralists of antiquity, were uncompromising

materialists; while the spiritualist Aristotle taught what is not easily distinguishable from a very refined sort of egoism. Again, the doctrine of free-will is now commonly connected with a belief in the separability of consciousness from matter, and like that is declared to be an indispensable condition of morality. Among the Greeks, however, it was held by the materialist Epicureans more distinctly than by any other school; while the Stoics did not find necessarianism inconsistent with self-sacrificing virtue. The partial derivation of knowledge from an activity in our own minds is another supposed concomitant of spiritualism; although Aristotle traces every idea to an external source, while at the same time holding some cognitions to be necessarily true—a theory repudiated by modern experientialists. To Plato the spirituality of the soul seemed to involve its pre-existence no less than its immortality, a consequence not accepted by his modern imitators. Teleology is now commonly opposed to pantheism; the two were closely combined in Stoicism; while Aristotle, although he believed in a personal God, attributed the marks of design in nature to purely unconscious agencies.

The naturalism and utilitarianism of the eighteenth century are the last conceptions directly inherited from ancient philosophy by modern thought. Henceforward, whatever light the study of the former can throw on the vicissitudes of the latter, is due either to their partial parallelism or to an influence becoming every day fainter and more difficult to trace amid the multitude of factors involved. The progress of analytical criticism was continually deflected or arrested by the still powerful resistance of scholasticism, just as the sceptical tendencies of the New Academy had been before, though happily with less permanent success; and as, in antiquity, this had happened within no less than without the critical school, so also did Locke cling to the theology of Descartes; Berkeley lapse into Platonism; Hume play fast and loose with his own principles, while Reid was rallying the Aristotelian psychology to a desperate stand against the new movement; and Kant leaves it doubtful to which side he belonged, so evenly were the two opposing tendencies balanced in his mind, so dexterously did he adapt the new criticism to the framework of scholastic logic and metaphysics.

Meanwhile the strength of the analytical method was doubled by its extension to the phenomena of growth and change; for, as applied to these, it became the famous theory of Development or Evolution. No idea belongs so completely to modern philosophy; for even the ancient thinkers who threw their cosmology into a historical form had never attempted to explain the present

by the past. If anything, they explained the past by the present, assuming a rough analogy to exist between the formation of the universe as a whole and the genesis of those natural or artificial bodies which were continually growing or being built up before their eyes. Their cosmology was, in fact, nothing but the old mythology stripped of its personal or conscious element; and, like it, was a hypothesis unsupported by any external evidence;—a criticism not inconsistent with the admission that this elimination of the supernatural element from speculation was, even in the absence of any solid addition to human knowledge, an achievement of inestimable value. The evolutionary method is also an elimination of the supernatural, but it is a great deal more. By tracing the history of compound structures to their first origin, and noting the successive increments to which their gradual growth is due, it reveals, as no statical analysis ever could, the actual order of synthesis, and the meaning of the separate constituents by whose joint action their movements are determined; while, conversely, their dissolution supplies us with a number of ready-made experiments in which the influence of each particular factor in the sum total may be detected by watching the changes that came on its removal. In a word, the method of evolution is the atomistic method, extended from matter to motion, and viewed under the form of succession instead of under the form of coexistence.

As a universal philosophy, the theory of Development, like every other modern idea, has only been permitted to manifest itself in combination with different forms of the old scholasticism. The whole speculative movement of our century is made up of such hybrid systems; and three in particular still divide the suffrages of many thinking men who have not been able entirely to shake off the influence of reactionary ideas. These are the systems of Hegel, of Comte, and of Mr. Herbert Spencer. In each the logic and metaphysics inherited from Greek thought are variously compounded with the new science. And each, for that very reason, serves to facilitate the transition from one to the other; a part analogous to that played among the Greeks themselves by the vast constructions of Plato and Aristotle, or, in an age of less productivity, by the Stoic and Alexandrian eclectics.

The influence of Aristotle has, indeed, continued to make itself felt not only through the teaching of his modern imitators, but more directly as a living tradition in literature, or through the renewed study of his writings at first hand. Even in the pure sciences it survived until a comparatively recent period, and, so far as the French intellect goes, is not yet entirely extinct. From Abélard on, Paris was the headquarters of that

soberer scholasticism which took its cue from the Peripatetic logic; and the resulting direction of thought, deeply impressed as it became on the French character and the French language, was interrupted rather than permanently altered by the Cartesian revolution, and with the fall of Cartesianism gradually recovered its old predominance. The Aristotelian philosophy is remarkable above all others for clear definitions, full descriptions, comprehensive classifications, lucid reasoning, encyclopædic science, and disinterested love of knowledge; along with a certain incapacity for ethical speculation,[1] strong conservative leanings, and a general tendency towards the rigid demarcation rather than the fruitful commingling of ideas. And it will probably be admitted that these are also traits characteristic of French thinking as opposed to English or German thinking. For instance, widely different as is the *Mécanique Céleste* from the astronomy of Aristotle's treatise *On the Heavens*, both agree in being attempts to prove the eternal stability of the celestial system.[2] The destructive deluges by which Aristotle supposes civilisation to be periodically interrupted, reappear on a larger scale in the theory of catastrophes still held by French geologists. Another Aristotelian dogma, the fixity of organic species, though vigorously assailed by eminent French naturalists, has, on the whole, triumphed over the opposite doctrine of transformism in France, and now impedes the acceptance of Mr. Darwin's teaching even in circles where theological prepossessions are extinct. The accepted classifications in botany and zoology are the work of Frenchmen following in the footsteps of Aristotle, whose genius for methodical arrangement was signally exemplified in at least one of these departments, the division of animals into vertebrate and invertebrate being originally due to him. Bichat's distinction between the animal and the vegetable functions recalls Aristotle's distinction between the sensitive and nutritive souls; while his method of studying the tissues before the organs is prefigured in the treatise on the *Parts of Animals*. For a long time the ruling of Aristotle's *Poetics* was undisputed in French criticism; and if anything could disentitle Montesquieu's *Esprit des Lois* to the proud motto, *Prolem sine matre creatam*, it would be its close relationship to the *Politics* of the same universal master. Finally, if it be granted that the enthusiasm for knowledge irrespective of its utilitarian applications exists to a greater degree among the educated classes

[1] What Aristotle has written on the subject is not ethics but natural history.

[2] "Ne remarque-t-on comment chaque recherche analytique de Laplace a fait ressortir dans notre globe et dans l'univers des conditions d'ordre et de durée?"—Arago, *Œuvres* III. 496.

of France than in any other modern society, we may plausibly attribute this honourable characteristic to the fostering influence of one who has proclaimed more eloquently than any other philosopher that theoretical activity is the highest good of human life, the idea of all nature, and the sole beatitude of God.

It remains to add a few words on the position which ancient and modern philosophy respectively occupy towards theology. Here their relation is one of contrast rather than of resemblance. The Greek thinkers start at an immense distance from religious belief, and their first allusions to it are marked by a scornful denial of its validity. Gradually, with the transition from physical to ethical inquiries, an approximation between the two is brought about, though not without occasional returns to their former attitude of hostility. Finally, in presence of a common danger they become interwoven and almost identified with one another; while the new religion against which they make common cause itself presents the same spectacle of metaphysical and moral ideas entering into combination with the spontaneous products of popular mythology. And be it observed that throughout the whole of this process action and reaction were equal and contrary. The decline and corruption of philosophy was the price paid for the elevation and purification of religion. While the one was constantly sinking the other was constantly rising, until they converged on the plane of dogmatic theology. By the very circumstances of the case an opposite course has been imposed on the development of modern philosophy. Starting from an intimate union with religion, it slowly disengages itself from the compromising alliance; and, although here also the normal course of ideas has been interrupted by frequent reactions, the general movement of European thought has been no less decidedly towards a complete emancipation from the popular beliefs than the movement of Greek thought had been towards their conciliation and support.

ALFRED W. BENN.

V.—CRITICAL NOTICES.

Philosophy and Religion. Selections from the Manuscripts of the late JAMES HINTON. Edited by Caroline Haddon. London: Kegan Paul, 1881. Pp. xix., 288.

This volume consists of excerpts from the earlier portion of Hinton's manuscript note books, covering the period, as the editor informs us, from 1856 to about 1861. The passages are arranged, not chronologically, but under headings devised by the editor, so as to bring out the several bearings of the main doctrine which runs throughout the whole, a purpose which seems to be well fulfilled by the division into Metaphysics: Nature known by the Moral Emotions: Mental Physiology: The Art of Thinking: The Self and Consciousness: The Bible: Holiness: Ethics. The fundamental ideas upon which the whole system is built become by this means far more readily discernible, and the student's labour is proportionally lightened. For this service the editor deserves our hearty thanks. And though the Author's Preface, which is prefixed to the volume, disclaims the idea that its contents convey a final view of his opinions—"they are not a statement of my thoughts, but a history of them, and present not the result, but the process"—yet this history itself has method and system in it, and the law of its movement is, in the case of a mind like Hinton's, of the greatest interest.

The circumstance which gives their unique value to Hinton's writings generally, and to the present volume among the rest, is in my opinion this. Being plainly and avowedly founded on religious and theological ideas, his system is nevertheless so framed as to satisfy the conditions of modern philosophical thinking, and does not require its disciples to clothe themselves in the rags and tatters of Scholasticism. It is requisite to a complete and final philosophy, that it should include theology as one of its divisions. No philosophy which failed to do this could maintain its title to the name. Now Hinton *begins* philosophy with this division; this is his avenue of approach. In doing so, he resembles the great mass of his philosophical countrymen, who have either a theological philosophy or none at all, and always approach philosophy through theology, never *vice versa*. But whereas others, owing to their theology, are Scholastic, it is Hinton's great distinction that owing to *his* theology he is not Scholastic but modern.

The difference between Scholastic and modern philosophy may perhaps be best expressed as the difference between holding and not holding the conceptions of Substance and Substantial Cause. Modern philosophy begins with the failure of Kant to rehabilitate these ideas in the shape of causal *noumena* or things-in-themselves. Any philosophy, even though based on Kant, which still brings in these notions, designedly or otherwise, is so far Scholastic. We now see no causality in matter; no causality in mind; no causality in noumena beyond

either or both of these. Cause is not a power residing anywhere; it is a relation. The relation in which one thing stands to another is what makes us call one a cause, the other an effect; not anything in the thing which is said to be a cause, as if causality was a property of it. It is the great service of Kant, that, while he failed to rehabilitate causality as against Hume, he yet showed us how, by a better analysis of the phenomena of thought, philosophy might be made independent of this and similar ideas. Not succeeding in himself rebutting Hume's scepticism, he opened a new mode of analysis by which it is rebutted. He first taught the world to look at the phenomena of consciousness as they are immediately known, and analyse them into their actual constituents. A great deal of otiose assumption was thus cleared away on the one hand, and on the other many new features came to light.

Nothing can put more forcibly the otiose character of both material and spiritual substance than the following sentence of Hinton's:—

"What is that 'I' that has consciousness? After all that question returns. Surely it is the same as: What is that thing that has weight? Take it away and leave the consciousness, and it is not missed" (p. 163).

Again he defines the self thus:—

"Is not this, indeed, an excellent definition of the self—the way we feel the absence of God?" (p. 171.)

Nor did Hinton leave the idea of substance any refuge in the ultimate ground of all things, as we shall see by another passage which I shall quote farther on. But first let us see what the main lines of his theory are.

Hinton's system is called by himself *Actualism*, a new word, with which, as he tells us in the Preface, he would gladly have dispensed, had it not been too much interwoven with his thoughts. "This term," he proceeds, "I gave, for convenience, to the general conception I had formed: it is parallel to idealism, materialism, positivism, &c., and was adopted to express the idea that all existence is truly active or spiritual, as opposed to inert or dead" (p. xiii.). And I think we cannot do better than follow his example by continuing to apply the term to that theory, the general meaning of which is clearly and concisely given in the first sentence of the present volume:—

"Men may adopt three views concerning the nature of the world. (1) That there is a material and an actual (spiritual), both truly existing, and necessarily with a certain antagonism between them; this leads rightly to asceticism. (2) That there is only the material; this being the true existence (at least to us), and such as we perceive it. There is (to us) no actual. This is positivism, as it speaks. (3) That the sole true existence is the actual; and that this material, or real, is our way of perceiving it. This last is actualism (or positivism as it truly is), the practical inference being that we have to deal with the real, but on the principle that it is truly actual, if we could see it aright, getting at the true Being by leaving out the negation" (pp. 1—2).

Now at first sight it seems as if we had in the "actual" a noumenal Thing-in-itself; and Hinton also constantly uses the term *noumenon*,

contrasted with *phenomenon*, for it. But really it is not so; knowability, not unknowability, is its essence. The language which Hinton uses, though misleading to those who are full of the Kantian Things-in-themselves, indicates merely this, that he did not speak on Kantian lines. Rightly or wrongly, he uses words of art in a meaning of his own, which is not their technical one. We have, he maintains, merely to place ourselves in the right attitude, and the actual becomes known to us. Take the following sentence from the chapter, "Nature known by the Moral Emotions":—

"It only needs to use our whole being in the induction, and then we know the actual. By sense alone we only know the apparent (not the *real*); by intellect alone we only know the abstract. Now taking both, and so bringing to bear a larger part of our being, we attain a better and truer knowledge, *i.e.*, of the real. But sense and intellect still are but part of us: by them we can of course only know the real—still the illusion, though not so merely an illusion as sense or intellect separately. But where is the moral nature? That which the sense alone learns cannot be true for the intellect also; that which the intellect alone learns cannot be true for the sense also: so that which sense and intellect alone learn is not true for the moral being also.

"The definition of the actual now is: that which is true for, which answers to, the whole being of humanity; that which will bear investigation by sense, intellect, and moral being, the latter correcting the former two, even as they correct one another. It is that which is learned by the joint action of sense, intellect, and moral nature" (p. 53).

Exactly so. That is modern and not Scholastic. The moral feelings have the same right to count in our idea of the objective world, as the feelings of the senses have. They equally depend on modes of motion in the organism, only they are more difficult to test, as standing in a remoter and less direct connexion with the external environment. To distinguish between the sensations and the moral feelings, and call the object of the one *matter*, and that of the other *mind*, is a rag and tatter of Scholasticism. Whatever is not matter in motion is consciousness; when conceived as dependent upon matter in motion, it is mind. Now sensations with all their modes of pleasure and pain, physical pleasure and pain as they are called, are states of consciousness, and if dependent on an organism are states of mind. No more and no less than this is true of moral feelings, with their pleasures and their pains. All feelings alike contribute, in their several ways and degrees, to give us a knowledge of what the world *is*, that is, of the value and meaning of the abstract mechanism of matter in motion, upon which they are conditioned. Light is not a fact and love a fiction. Both are fact or fiction equally, at any rate, call it which you will. But if you say *fiction*, then ultimately the material mechanism must be a fiction too, on the same grounds. This seems to me the drift of Hinton's theory.

Closely connected with this is his view of the material world. "Matter," he says, "is a mere symbol or expression, without any meaning of its own, for some unknown fact. To deny it is no less absurd than to assert it: it is to be interpreted" (p. 38). Now it is

sense and intellect, taken together, which give us our notion of "matter"; and this, he says, is a symbol to be interpreted. Interpreted by what? By the moral nature. But it is impossible to give Hinton's full thought on this point, because the passages are too numerous, and taken separately too fragmentary. The following perhaps gives as much as any single passage can, but requires much supplementing:—

"This, that we see as physical, necessarily corresponds to the moral; because it *is* moral; it represents it to us in a lower form because we do not perceive the moral element in it. We suppose cause and effect, &c., not seeing that it is true action or love. The physical is the moral with the love left out; and therefore the form without the fact. All the physical palpably is just that—the form of the moral without the fact. So the law is as we see it; yet truly it is the very fact of love; the not-love which constitutes it "Law," is only in us. And so of all: so of the physical world; it is the very fact of love; the not-love which constitutes it physical, is only in us" (p. 63).

Observe, there are two things in Hinton's view. First, that we see "matter" as dead, inert (by which I understand him to mean its impenetrability), because *we* are dead, inert, not alive enough to see that impenetrability is a complex mode of consciousness, a complex *phenomenon*, which is therefore conditioned upon something other than itself. This is what any idealist might hold. Secondly, peculiar to Hinton, is this, that the deeper insight, which is required to see what the conditions are, is moral not intellectual, that if we had *love* sufficient to cast out all selfishness, we should see what "matter" really was. "Because in reference to our moral Being there is a 'not' in us, which there is not in reference to our intellectual" (p. 39).

Hinton is not idealist simply; his characteristic is emotional and moral, rather than simply intellectual, idealism. Those who have read Dr. Royce's able and interesting article "Mind and Reality," in the last Number of this Journal, will understand me when I say, that what Hinton brings is just the complement to the hypothetical universal consciousness of that article:—

"But our hypothesis is plastic. An ethical theory of reality, if such can be established, has but to speak the word, and our Universal Consciousness will be transformed into what he now is not, an active Spirit." (MIND XXV., 54.)

One theory says, there is for the intellect an universal consciousness, the other adds, that its nature is known to us as Divine Love. And the two theories coalesce in virtue of the doctrine, held in common by both, that the conception of reality given by a search for causes is subordinate to the conception of reality as of similar nature to our own consciousness. It is not necessary to hold farther, with Dr. Royce, that all objective reality, external to us, is a *postulate*.

Still it must not be forgotten, that no fully articulated system is to be found in Hinton. He warns us himself, in his Preface, that his thoughts are written down as they occurred to him, and that they

continually seemed to outgrow their expression, and lead him ever on and on. Moreover, we have, in the present volume, excerpts only from the earlier portion of his manuscripts. So that in saying, Hinton thought thus and thus, I seem as if I were substituting something inaccurate in place of the real and veritable Hinton; not to mention the many omissions which in a short article are unavoidable, some of them most important, as for instance his thorough-going Determinism, combined with Freedom, which is an essential characteristic of his theory (pp. 55, 69, 81-2, &c.). This, however, only makes it more necessary for readers to go to the book itself, and not rest content with a reviewer's account. It will well and abundantly reward the reading. For in saying that we have in it no completed system presented to us, it is by no means meant that the thoughts are not systematic. True, it is not a formed system, but it is a system in process of formation that we witness.

Another peculiarity must not be left unnoticed. It is, that Hinton does not stand upon and continue the strictly *philosophical* tradition; he does not look upon philosophical problems as determined for future investigation by the speculations of Hume, Kant, or other metaphysical writers. It is as a theologian that he approaches philosophy, or rather as a man with theological prepossessions. If I say that he philosophises by light of nature, it is only to add, that he is a remarkable and brilliant exception to the generally worthless character of that sort of philosophising. To professed philosophers on the traditional basis his speculations ought to be all the more welcome on that very account. He rises into philosophy, out of common-sense, science and theology; and thus gives an independent testimony to the inherent necessity of philosophy to thought.

I have said that Hinton's thinking is systematic, and I would add a word or two on this point. In all systematic thinking, certain general ideas or moulds may be traced, in which the thoughts run, to which the rest are referred as a norm or standard, and which we may call the reasoner's *apparatus logicus*. Two ideas of this kind stand prominent in Hinton's present volume. The first is the distinction between *nutrition* and *function*, drawn from his physiological science; the second is a sort of Hegelian *negation*, which he calls the "not". These two ideas are often applied together; but often they are used separately, to subsume under them, and so explain facts of experience. Thus, the accumulation of ideas and framing of theories are a case of nutrition, the storing up of energy and material; knowledge on the other hand is the interpretation of that store, the function of that nutrition, when we see, as it were, all round our theory, see how we came to form it, and to what it leads (pp. 5-6). Again, to see that the "not" is the essence of the physical is the interpretation of the theory that matter is real; the theory is a nutrition, and its interpretation by the "not" is its resulting function (p. 25). This is carried out in a great number of cases throughout the volume. Indeed the application of these two ideas may be said to be the backbone of the whole.

As to the "not" doctrine, the passage which seems to throw perhaps the most light upon it is one in which it is brought into connexion with the infinite, and is that to which I alluded above as showing how Hinton banished the idea of substance from his "actual" being:

"Reflect how 'infinite' is a merely negative term. We have come by familiarity to overlook this. It means inconceivable, the denial of everything by which we conceive. Saying God is not personal, not conscious, not moral, is simply carrying out into particulars this general statement that he is not-finite. We cannot conceive God as He truly is; yet if He were a person, or moral, or conscious, we could conceive Him. It is strange the reluctance there is to admit this; we seem to feel that by giving up as true in respect to God that which arises from limitation or negation, we are giving up His Being. God is none the less *not* these things that we are, because He is not so by being *more* instead of less. To a man to whom shadow is reality to say that there is no darkness, is to deny. Thus is it with us; when the darkness, the self-ness, is denied of God, we tremble, as if our God were being taken from us. But in truth, He cannot be God that *can* be denied; God must be such, the denial of whom is a contradiction in terms; if we could rightly see the case, we should see it so" (pp. 182-3).

And now in conclusion, what is the true position of this theory, and what may we fairly judge its merits and defects to be? Its position is this. There are two great divisions of philosophy; the first is strictly and soberly analytic of the phenomena of human consciousness, the second is synthetic or, better, constructive of the relations which connect the filling up of the finite world, which we see, with that of the infinite world beyond it, which is unseen. The first is the basis of the second, for the *fact* of the infinite is given in and with the elementary phenomena of the finite. Hinton begins with the second division, and what his theory requires as its complement is a strict analytical connexion with the facts of the first division. He is not without such a connexion altogether, but it is not fully worked out; it lacks, as yet, its sufficient analytical basis. But it is not on that account baseless. The connexion between the filling up of the two divisions is and must be of a practical or ethical, not of a purely speculative kind; and it is the *facts* constituting this ethical connexion, on which Hinton has seized. He is based on *ethical fact*. Begin where you like in philosophy, and you are doing good and sound work so long as you keep to facts, and do not make them the occasion of *a priori* speculation about other facts. They will be sure to find their proper place, when the complementary facts are in due time discovered.

This sobriety of treatment is one great merit of Hinton's philosophy. To show what I mean, I will contrast it with that of another philosopher, who may also be said to begin with the second division of philosophy, since he treats both divisions as one, and who also makes *negation* the pivot of his reasoning. Hinton contrasts favourably with Hegel in this, that, though he sees the universality of the "not," he does not attribute creative energy to it, or imagine that thought

produces phenomena out of its own law of negativity. Hinton's negation is not a noumenal energy but a phenomenal fact. It is the shortcoming of whatever is finite, compared to the infinite. He does not pretend to include the infinite in thought, as being its product, or dream that trying to comprehend it and failing are equivalent to comprehending. With Hinton the infinite is what cannot be comprehended; and finite and infinite are parents, not products, of negation. Thus, notwithstanding the close similarity of the two philosophies, in point of the negation-principle, their difference in that same point is far more essential than their similarity, and to my mind the advantage is entirely with the Englishman. Intellectually to comprehend the universe, and understand the law of the divine mind, is doubtless a magnificent idea. But magnificence is no sure test of truth. Here too the half is far more than the whole; a half, which is wholly fact, more lasting and more valuable than a whole which is half fiction.

SHADWORTH H. HODGSON.

The Metaphysics of the School. By THOMAS HARPER, S.J. Vols. I. and II. London: Macmillan, 1879, 1881. Pp. lxxx., 592; xxvii., 757.

II.

It is a relief to be allowed to pass from the supersubtle speculations that closed the section on Transcendental Goodness, to Book IV.—"On the Principles of Being". The first sentence sets us at ease, for "by principles of Being are understood those universal judgments by which Being and its notes are represented". The book, in fact, promises to treat of *principia cognoscendi*, or the ultimate grounds of our knowledge. Father Harper tells us these are either analytic and universal, or synthetic and empirical.

Amongst the former is "the Principle of Causality". An analysis of the idea of contingent or inceptive being gives it; *i.e.*, it is implied in beginning and change. But scholastic cause is "outgoing activity," and not the mere invariable antecedence "of modern scepticism". That only antecedence and succession are found in experience is not true, "for the universal persuasion of mankind affords sufficient evidence of the contrary". But surely it is the business of philosophy to correct vulgar unanalysed opinion. Least of all must we swear by the *dictum* of master-mob. How is the something more found? By subjecting experience to the *intuition* of the *intellect*. And what is it when found? Of course, it is not any physical condition, or the sum of the conditions. Moderns and sceptics can find these without the aid of "the intuitive understanding". It is "outgoing activity," "efficient cause". F. Harper asks, "Does the understanding of men in general intue efficient causation, or rather an emanation from the cause into its effect, latent underneath the phenomena of nature?"—and answers most emphatically in the affirmative. Very well; those

that cannot get "underneath" must be content to remain in invincible ignorance with Hume, Mill, and other good company.

However, we have not yet reached the citadel of the scholastic doctrine of causality. It is "the Will". "The fact of causal influx in spiritual being is attested by an evidence that has no rival in purely natural cognition, because the object is *immediately* present to human consciousness." "My will energises," and I know it immediately. "I simply intue the . . . fact that my will is the efficient cause." All I can say in reply is that I cannot find any "simple entity called myself," nor any entity called "will," nor any "causal influx," because I have not the special intuitive faculty: and, being outside the charmed circle of intuition, I only find a phenomenal self, and a feeling-of-effort which is phenomenal—sequent and concomitant phenomena only. These alone are my objects—and the subject is never object.

The rest of this chapter is taken up with a protracted search for the *ultimate* principle, and by the way there is much subtle controversy with Hamilton and others. Hamilton upholds the Principle of Identity. Mr. Harper finds the Principle of Contradiction to be "ultimate in order of reduction," and therefore "first in order of thought and genesis of science". But much time might have been saved by simply observing that these two are obverse aspects, each of the other. In ontological phrase accommodated to the nomenclature of the School, the affirmation of Being is the denial of non-being, and *vice versa*.

"Experimental Principles," *e.g.*, the law of universal gravitation, are next discussed. The question is, how is it possible for these judgments to assume an approximate or *quasi*-universality? How do "certain empirical judgments," founded on sufficient observation and induction, "assume a moral universality which makes them physically certain, and are thereby elevated to the rank of experimental axioms"?

The answer is, "By application of an analytical judgment" which is thus expressed:—"Those material entities which act according to the same physical law or under the same natural impulsion will ordinarily (*i.e.*, almost always), under similar circumstances and conditions, produce similar effects". But the qualifications, "ordinarily" and "almost always," obviously take this out of the category of true analytical judgments, which are universal and necessary by their very form; and show it to be a mere restatement of the problem to be solved in other terms, instead of what it professes to be, the condition of its solution.

Again, it is not analytical in the sense that its subject and predicate are identical. F. Harper takes care that we shall not mistake it for the *formal* axioms of "the uniformity of nature, or of the course of nature," in unfamiliar guise. It does not mean, the same that has happened will happen again under the same conditions: *i.e.*, A is A, the sum of the conditions is the sum of the conditions, the universe is the universe, whether taken in *stasis* or in flow, and whatever its

content known and unknown, and at whatever point of time past or future we suppose the instant of attention and conceptual arrest to occur. In this way we might have an absolutely sure, because logical and identical, basis to offer men of science for their expectations and previsions and reasonable probabilities, and concrete empirical axiom of uniformity—something absolutely stable to stand on before taking their plunge, and, as Professor Bain has it, risking the future.

But F. Harper goes quite another way to work to make good Prop. 125—not analytically but constructively, not metaphysically in the proper sense but theologically. He postulates "God" to prove his *analytical* proposition! Physical law implies a Lawgiver: "and our conviction as to the constancy of physical laws rests on the infinite wisdom and unchangeableness of the great Lawgiver". The protest must be again entered here, that it is not competent for a metaphysician to beg and borrow from a church-creed. The attempt betrays weakness and poverty, and once more we find the School figuring as a mere pensioner of the Church.

This way of philosophising has its advantages however. The exposition is complicated, a seed of corruption is sown in the heart of it, but miracles are saved! For we have imported "God" into our argument, and with him "Freewill"; and "it stands to reason that he who of his own freewill imposes a *law* or order has the power to suspend it, or, if he pleases, to arrest the effect". "For, though the nature or essence of an entity as such is immutable and not subject to the freewill of its maker, yet its existence is so subject, and *a fortiori* its natural acts." Here again "essence" is separated from "existence," and creation by freewill is assumed from the creed, and so room is found for the miraculous, and we understand the meaning of "almost always"!

As F. Harper, following his master, denies the possibility of *a priori* synthetical judgments in Prop. 127, he has to deal with Kant, and he lays siege to him by regular approaches through Descartes, Locke, and Hume.

He postulates the practical infallibility of Reason, and denies the possibility of its criticism. The only quest of reason is "objective truth," namely Being-as-such and the like; and it must take itself for granted without criticism. Accordingly, Descartes with his preliminary pretence of doubt was the father of all critical and sceptical philosophies, and will perish with the destruction that will overtake them, when the School comes to its own.

The position of Locke and "the sensists" is broken up and passed through by a single bolt from that engine we have found always at hand and ready for action—"the intuitive understanding". Substrates, substances, and so forth are amongst things certainly known. There is a real ground for universals.

Berkeley and the idealists receive the same *coup de grace*. This instrument of war is irresistible—if you have it.

Hume appears to give more trouble. But the elaborate tactics here are only flourish and stage-effect. He might as well have been

brought down by the first shot. Yet F. Harper's exposition of Hume is more than fair. It is generous to a fault. It does not bring his weak points to the front, or when it does so, it fails to expose and transfix them. It does not strike at the individualistic standpoint which narrows Hume's speculation, nor the sensational atomism which vitiates his conclusions, preventing a vision of the world in consciousness as one perceptual *continuum*, and of the search for causes as necessitated by the conceptual breach of this continuity, and leaving him in the end with Mind and World as mere accidental bundles, without bond, of discrete atoms of feeling. On the other hand, F. Harper stigmatises what is convincing in Hume, and has found acceptance with all but the School and the post-Kantian ontologists—namely, his world as representation or phenomenon, "belief" as an irreducible radical of mind and ultimate ground of knowledge, his repudiation of such entities as "cause," "power," "force," "faculty," "will," his affirmation that "the principle of individuation is nothing but invariableness and uninterruptedness of any object through a supposed variation of time," and his "idea of existence" as "the very same with the idea of what we conceive to be existent".

F. Harper's account of Kant is also fair and very complete, though he warns us that, as mere ideology and theory of knowledge, "*The Critique of Pure Reason* can only claim the notice of the metaphysician partially and indirectly"! His animadversions on the ambiguities in Kant are acute, but need not detain us, as they are not new. He remarks, of course, how Kant plays fast and loose with things-in-themselves. When, on the other hand, Kant declares himself a thorough-going phenomenalist, he brings up his infallible artillery —"the intuitive intellect"—with result as usual, sudden destruction. Quoting Professor Caird (p. 108), he indicates a very fertile field of criticism on Kant, *viz.*, his confusion of analysis with genesis. He also points out the initial error of Kant, which, if insisted on, is fatal to the whole of his system. Kant starts like Hume with fleeting chaotic and isolated atoms of feeling. These strike the mind, *already there on the other side*, like a hailstorm, and to reduce this pelting chaos to unity and order and permanence, Kant has to furnish the mind with categories or innate forms of thought. There is individualism here, as well as atomism.

F. Harper sees this, and also appears to see that the Kantian syntheses are secondary—subsequent to and dependent on an analysis of the primitive synthesis or concrete *continuum* where thought and feeling interpenetrate, and content and form are found lying together in one. Kant then is only putting together what has been taken to pieces. All conscious synthesis presupposes analysis of the original synthesis—all reflective construction is reconstruction; and Kant's manifold, pure forms of perception, categories, &c., are only elements, products of analysis, in themselves inchoate. Yet strange to say, F. Harper does not see how this view tells equally against the School, and forbids all "*a priori* demonstrations," or constructions beyond the *continuum* or synthesis of experience. All such work is

at best only a clearing-up and making plain and distinct, and can present no new object or phenomenon.

While then we may be forced to conclude with the Schoolmen that there is no synthetic judgment possible *a priori*, for the elements of every such synthesis are products of a prior analysis of what is given in primordial synthesis in the world of continuous feeling in Time and Space; nevertheless, the concession avails them nought, so long as being naturally devoid of intuitive understanding, we are compelled to hold with Kant on the main point, that "all our intuition is nothing but the representation of phenomena".

Excepting an appendix on "The teaching of St. Thomas touching the genesis of the material world," the last 600 pages of Vol. II. treat of "Causes of Being in general," and material and formal causes in particular. Discussion of the appendix is better deferred, as F. Harper tells us it cannot be completely understood without a consideration of "efficient cause," which will have the third volume to itself, where F. Harper promises to fully unfold "the harmony that exists between the metaphysic of the School and the latest physical discoveries".

"Cause is a principiant which essentially and positively communicates being to another entity, or which produces an existing essence distinct from its own." It does all this "by virtue of positive influx". It is in its first act, when all or some of the conditions are wanting; in its second, when all are present; in its third, when it actually produces. Now I should say this little drama does not exist, for the first act is mere possibility or non-being, and the second and third collapse into one.

Then we are told that "the absolute entity of the cause is really distinguished from the absolute entity of the effect". But I take it that they are obverse aspects of one and the same. The effect viewed as possible is the cause: the cause viewed as actual is the effect. The event is the sum of the conditions, and *vice versa*. A single condition or any number of conditions short of the sum may certainly antecede the event, but are not the cause, only elements of the cause. The whole cause is the effect or event, and *vice versa*. A twofold distinction given in two different points of view is not the affirmation of two absolute separate entities. Here again the fontal error of the School is at play, which separates to distinguish, and distinguishes to divide, and confounds inchoate elements or contradistinguished aspects with separate concrete things.

Though the definition of cause is wide and vague enough, it is difficult to see how it covers so-called material, formal, and final causes. Matter or content, and form are *principia essendi:* "final cause" is obviously *principium cognoscendi:* and "efficient cause" alone is *principium existendi*, or "principiant" in the sense defined above. It is a pity that we cannot all agree to confine the use of the word "cause" to this last. F. Harper sometimes appears to see this in respect of final cause, but he is saved from any clear sight of it by his absolutism. The entity "Will" comes to his rescue. "The

purpose or intention as thought is a real entity . . . and capable of energy!"

"Material cause" is a very old friend. It is "primordial matter" or matter *per se*. We do not appreciate it because "metaphysical science, properly so-called, is a *terra incognita* to the men of thought and of education in our day. That which goes by the name is a sorry amalgam of logic, ideology, and psychology."

Primordial matter is a "metaphysical" part of matter; but this affirmation is not to be taken in any "sorry" ideological sense. Matter primordial is an absolute entity discerned by the intuitive faculty. "It is a primordial subject of substantial changes." When the Schoolmen try to envisage it, they are apparently contemplating blank space as indifferent to any particular changing content. At least only so can our mutilated minds imagine them trying to perceive it. I say so, because they appear to reach it by way of intuition rather than inference, and all their elaborate proofs are an afterthought. An inference as such for the mind that has inferred is a concept—*ens rationis*. But primordial matter is "real being".

Further, "the material cause of all bodies is numerically one". Here (p. 197) as elsewhere, the illustrations and secondary proofs from recent physical science—in this case from spectrum analysis—are irrelevant. For, if Mr. Lockyer is right in his prognostication, and there should turn out to be but one chemical element instead of sixty or so, this chemically unique matter would be sensible or perceived, existing in the plane of phenomena, and not below it; nor would it indicate or imply any primordial material unit "underneath". This is a fair sample of how modern science and the metaphysic of the School are brought into line and reconciled.

"Form and matter are really distinguishable from each other as *thing* from *thing*." The italics are F. Harper's. Yet the second "*thing*" is "a purely passive potentiality or receptivity," with "an entity and existence so imperfect that it cannot *be* without the assistance of the form".

But here with the conception of matter-*per-se* as "potentiality," we are thrown back again into the scholastic region of "possible beings," already traversed and found empty.

The various physical theories of the constitution of matter do not really compete with the School-doctrine. They are not in the same arena, as they deal with sensible and "intelligible" matter only. F. Harper, however, gives them a good deal of criticism, but for the most part his shafts are not drawn from any distinctively scholastic quiver. He has simply collected the animadversions of many minds, ignorant of, or even adverse to, the School. These need not detain us.

We pass to "Form". Form is to matter as act to potentiality. I suppose this means that the one is actuality, or real existing matter, and the other is its mere possibility and equal to nought. Yet "this substantial form and the matter are real physical parts"! If we doubt the existence of substantial forms, we are reminded that we

always carry one about with us, and have direct knowledge of it—*viz.*, "the me," the soul; and it is a fair inference that all other bodies are "actuated" by substantial forms. There are many other proofs. Why else should curly hair refuse to keep straight, or straight hair decline to retain the impress of the curling-tongs? (p. 414.) Why do pink eyes and white hair go together in albinos; and how account for "correlation of growth" generally? (p. 415.) Why do stickiness, sweetness, and cubical shape cohere in sugar; and how account for other more recondite instances of such union, as given by Haeckel and Nicholson, &c.? (p. 416.) Again, for the short proof of substantial forms like bovinity and sulphuricity, see page 431.

But "the eduction of bodily substantial forms out of the potentiality of matter" is the grand doctrine that will harmonise the School and modern science (p. 459). The *deus ex machinâ* puts "seminal forms" and "certain powers active as well as passive" into primordial matter, and then brings them out again. That is really all that "eduction" means; though we are told in further explanation that matter has an appetite for actuality, that there is a "concreation" of matter and form, and that "eduction" is brought about "by virtue of a divine seal originally impressed on matter". But perhaps men of science will understand better what is meant if they take F. Harper's instance from chemistry. The form of phosphorus only exists potentially in bone-phosphates. By chemical analysis it can be educed out of the potentiality of the matter! (p. 497).

"The fecundity of God" accounts for the vast diversity of forms in nature: and "since there is a diversity . . . there must be a corresponding number of special dispositions in the matter". So it turns out that the world-stuff never has been quite without form and void, but has been informed and determined all along by "special dispositions," which any one can see are only the substantial forms under another name. This process of seeing double is another peculiarity of the School.

F. Harper here recommends to naturalists a new way of classifying. Let them base their systems on "substantial forms," for on them depends "specific diversity". "Specialisation of function" and "morphological type" are not by themselves safe guides, and hence the confusion and discrepancy to be found in biological works. But only get at "species," *i.e.*, "substantial forms," and you will find they never deceive you, and what is more, *never vary*. This last points to the short and easy way of the School with Darwinism. But is this the promised *Eirenicon*?

However, F. Harper tries again, and introduces "*interstitial* substantial forms" to conciliate evolutionists and believers in the unity of nature and the continuity of her history.

Copious illustration from natural history follows, and gives a colour of reality and naturalness to the factitious agreement with science. But scholastic compromise must draw the line somewhere, and so there is no continuity of "interstitial forms" between beast and man. In creation man was reached *per saltum*, for "a form must be wholly

spiritual" or the contrary, "though its faculties may be partly the one, partly the other"! Much to the contrary in *The Descent of Man* "looks like an ill-timed joke".

There is only room to mention one more attempt to throw a sop to science. It is the embryology of the School; which does not, however, allow any "identification of Ontogeny and Phylogeny," but only means that "man, as efficient cause of generation, can generate the lower forms of life, because his soul virtually and eminently contains them all under itself". Thus by the formative virtue in the sperm-cell, the form of the sperm-cell is driven out, and another form brought in, which in its turn is driven out and a third form brought in, and so on till the "animal" form is driven out, and the Creator introduces the spiritual human form! In condensing St. Thomas here, I have been careful to give his exact meaning, and embryologists must decide whether such an allegory throws light on their studies.

One pictures the little entities like pellets in that old-fashioned toy, the pea or popgun, where as each pellet of tow goes in, out goes the one before it. F. Harper refers to Haeckel's *Evolution of Man*, chap. xii., pp. 402-4, in corroboration of his story!

I venture to conclude with a well-known passage from Hume, which F. Harper seems to hold up to ridicule;—only premising that there is an omission in it due to the narrowing effect of Hume's individualism, and therefore about any book addressing itself to the understanding, I would put a third query:—Does it contain any subjective and reflective analyses of the content and form of consciousness? "If (says Hume) we take in our hand any volume of divinity or school metaphysics, . . . let us ask, Does it contain any abstract reasonings concerning quantity or number? No. Does it contain any experimental reasonings concerning matters of fact or existence? No. Commit it then to the flames; for it can contain nothing but sophistry and illusion." F. Harper's books, acute, ingenious, and learned though they are, only deserve a better fate, because they do occasionally contain some of these three things.

J. Burns-Gibson.

Text-book to Kant. The Critique of Pure Reason: Æsthetic, Categories, Schematism, Translation, Reproduction, Commentary, Index. With Biographical Sketch. By James Hutchison Stirling, LL.D., Foreign Member of the Philosophical Society of Berlin. Edinburgh: Oliver & Boyd; London: Simpkin, Marshall, 1881. Pp. xxviii, 548.

To a certain extent it may be said with truth that the more a philosophical author is studied, the less likely are students to agree in their interpretation of his writings. This is particularly the case when the author's name has, somehow or other, acquired an authority over men's minds, so that people are anxious to square their opinions by his rule, or at all events to exhibit them as the legitimate develop-

ment of his recorded system. No man's reputation stands higher in the world of thought at the present moment than Kant's, and accordingly it is not wonderful to find his professed expositors promulgating in his name the most diverse theories of the world. Kant, in fact, is rapidly being constituted a kind of philosophical Bible, in which, according to the often-quoted lines, every man successfully seeks his own set of doctrines. The "Illusionism," as it has been styled, of the most consistent Neo-Kantians, and the doctrines of the so-called English "Hegelians," not to mention other positions, are found invoking Kant's name with equal confidence. Now though this is in a sense natural, seeing that there are passages strewn up and down his writings to which the contending parties may appeal with much plausibility in supporting their claims to genuine discipleship, yet the practice is none the less to be regretted, as tending to remove historical landmarks. The real Kant would have been the first to disavow the positions attributed to him. The prevalent habit of substituting a *development* of Kant's doctrines—a development sometimes in one direction, sometimes in another—for the plain statement of Kant's own theory, has the additional disadvantage of diverting properly philosophical discussion into philological channels. When a theory is stated in Kant's name, the retort is always open that the doctrines in question are not to be found in his writings; and there ensues a dispute as to the meaning of certain passages, which rarely leads to any satisfactory conclusion. Philosophically, it really does not matter whether a doctrine is traceable to Kant or not: the point is whether the doctrine in question is maintainable with due regard to facts. It is desirable, therefore, in order that any theory may have its truth fairly tested, that it be stated on its own merits; and it is at least equally desirable that the genuine lineaments of the historical Kant should be once for all clearly discerned.

A "Reproduction" of this sort is, as I take it, the purpose of Dr. Stirling's present book. Perhaps it is not mere fancy that reads his intention even in the stern simplicity of the title—*Text-book to Kant.* The volume contains no adumbration of anything beyond Kant; it is Kant from beginning to end, and nothing but Kant. With laborious faithfulness and his own unique power of exposition, Dr. Stirling places the theory of the *Critique* before his readers precisely as it took shape in its author's head. Every effort is made to expound from the standpoint of Kant, and so to help the student over superficial incongruities of statement; but there is no attempt at throwing into the shade the real contradictions of the theory. Kant is presented to us with all his imperfections on his head, and we are apt to wonder, before the end, how he could possibly have believed his own theory; so plainly does it show as "a figment in the air"—"a house of straw" (pp. 488-498). In this respect, Dr. Stirling's faithfulness to his original may almost be styled merciless. Nevertheless, there is the clearest evidence that it was precisely this "figment," with which Kant supposed himself to answer Hume. Dr. Stirling's rehabilitation is, therefore, a contribution of the highest value to the history of

philosophy. He has done his work in such a way that it will never require to be done again.

The nucleus of the volume is a Translation of the constructive part of the *Critique of Pure Reason*, that is to say, of the Introduction, the Æsthetic, and the Analytic. In the last division, Dr. Stirling stops short at the end of the System of Principles, thus omitting the concluding chapter, on the distinction of phenomena and noumena as applied to objects, as well as the Appendix with its valuable criticism of Leibnitz, embodied in the doctrine of a transcendental Topic. The Appendix clearly lies outside of Dr. Stirling's plan; and his omission of the last chapter is evidence that, in his judgment, the general theory stands complete without it, and does not require to be modified by anything there said. Except so far as a reference forward to the noumenal world of ethics may be read out of the express limitation of the sphere of sense, there seems no reason to doubt that this is so. No fault can be found, therefore, with Dr. Stirling's good pleasure in stopping where he does, however much the purely English reader may regret the premature loss of his unerring guidance. The omission of the 'Refutation of Idealism' from the Translation (though that is made from the second edition) was scarcely, perhaps, well-advised. It is plain, however, that the omission has not been prompted by any *arrière pensée;* from his remarks in the Commentary it appears that he understands the 'Refutation' to refer to "actual transcendental things as external," and the whole of his own exposition assumes Kant's belief in the existence of such "things". He has omitted it, he says, "simply as so far hardly relevant, and not as wishing to indicate a judgment". As regards the merits of the Translation it is almost superfluous for me to speak. Thorough knowledge of German idiom and complete philosophic grasp have combined to give a rendering of Kant's words which faithfully reflects every shade of the original thought. To some it may be a disappointment that no uniformity is aimed at in the translation of recurring philosophical terms. Dr. Stirling warns us that, in this respect, he has availed himself of "a considerable latitude of phrase". This especially applies to such words as *Vorstellung* and *Erscheinung;* and when it is said that the latter term is sometimes translated "impression," the extent of the latitude claimed will be at once appreciated. But the Kantian terms take on their special meaning to such an extent from the context, that an unthinking literalism in translation is no guarantee at all that the genuine thought is thereby conveyed. Dr. Stirling's faculty of rendering thought is so eminent, that the reader may always rest assured that the "latitude of phrase" involves no distortion of the meaning, but quite the contrary.

The Translation is preceded by a "Reproduction" of the Kantian theory of perception, as laid down in the Æsthetic and Analytic, and is followed by an elaborate "Commentary". A word of mention is also due to the genial and quaintly conceived "Biographical Sketch" with which the volume opens. The Reproduction was executed, Dr. Stirling tells us, in 1862, and is "all that exists of the 'Exposition

of Kant' several times mentioned in the *Secret of Hegel* as prior to that work". The Commentary, which extends to nearly 200 pp., has been written for the present occasion. Both Reproduction and Commentary enforce the same view of Kant. The Reproduction is in many ways a very wonderful piece of writing; it is a fresh proof of a gift of living exposition such as has rarely been equalled. The argumentation is sometimes so close that in hands less skilful it would be in danger of becoming obscure; but in Dr. Stirling's it is merely terse. Every thought is so cleanly turned off, that there is not a single point in the argument which remains obscure. It is a high intellectual pleasure to read Dr. Stirling's clear and telling sentences. The reader may feel the unsatisfactoriness of Kant's whole mechanism; but he must feel at the same time that he has seen all its pieces, and how it was meant to work.

It is important, then, on all accounts to see the Kant that Dr. Stirling presents us with. He puts his position very strongly—but on the whole perhaps not too strongly—in the opening of the Commentary:—"What we are to see, then, is not a mystical, idealistic philosophy, but a mere physiological or psychological theory of perception, on the ordinary basis of common sense. . . . The common ground throughout is, as has been so often remarked by Kant's own countrymen, that of the ordinary Lockeian psychology" (346-7). In fact, it does not admit of doubt that, in the opening paragraphs of the *Critique*, Kant places himself, even verbally, at the standpoint of Locke. The question he asks himself is simply this—How must Locke's theory of perception be modified, in order to account for the universal and necessary judgments which we find in experience, but to which, according to Kant, experience in itself is not competent? Hume has supervened upon Locke with the proof that, if the mind is purely passive in perception, any connexion between matters of fact must be of a purely subjective origin and validity. Kant admits the cogency of Hume's argument, but refuses to recognise Hume's world as adequately representing the facts of the case. He takes his stand upon the *fact* of universal and necessary judgments, and proceeds to modify the Lockeian theory to account for this feature of scientific and every-day experience. If necessity cannot be derived from the side of the object, as Hume has shown that it cannot, then it must be explained by the contribution of the mind itself in the act of perception. In other words, we recognise in things only an universality and necessity which we ourselves place in them. Our perceptions are a compound of matter contributed by unknown things without us and form contributed by the mental faculties. Kant's "transcendental system" is simply an enumeration of the formal elements added by the mind with an explanation of the mode of their combination with one another and with the empirical matter of sense to shape any bit of rational experience. This system of *a priori* elements is Kant's answer to Hume; and historically Kant's intellectual theory appears simply as this answer to Hume's doubt about causality. It is strictly as such an (ineffectual) answer

that Dr. Stirling treats Kant throughout the present volume. The Æsthetic gives us the pure forms of space and time as perceptive universals, in which the units of sense are received and arranged. The Analytic adds to these the categories and the unity of apperception, by which, in combination, the matter of special sense, disposed in the forms of general sense, is worked up into a knowledge of objects. These objects are objective in the sense of belonging to one context of human experience, and so being the same to all; but they remain, of course, a strictly subjective manipulation of our sense-affections, when compared with the thing-in-itself that sets up these affections in us. As Dr. Stirling emphasises, Kant never doubted the truth of what Reid called 'the ideal theory,' upon the basis of which Hume, as well as his predecessors, had philosophised. Hence he necessarily regarded us as shut up to the knowledge of our own mental states. This being so, it is evident that the necessity which Kant imports into experience from the side of the mind has its limits very definitely marked out. The question of right or validity (*quid juris*), which Locke failed to put to himself, we have answered by referring certain perceptions and notions to the constitution of the mind itself. But the answer cuts two ways. As belonging to the mind, these principles of connexion have an unquestionable *jus* or validity within experience: but inasmuch as our mind is a mere blank without the matter of sense, it is a vain dream to think of employing them beyond the bounds of a possible sense-filling. They have been 'deduced,' or they have had their necessity vindicated, solely in order to explain certain features of the facts of perception. In short, the *a priori* is merely transcendental; and, as Dr. Stirling says, "to call a thing transcendental is the same thing as to say it has an empirical reference". The phrase "empirical reference" must be allowed to be the simplest and most unequivocal rendering of the term 'transcendental' that has yet been offered. In this way, Kant argues, the bounds of our knowledge and our ignorance are clearly discernible. We are eternally cut off from a knowledge of realities; but the orderly context of our own states, as dependent on sensuous affection, we can know with scientific certainty and precision.

Strictly speaking, there can be no cognition without the co-operation of the four factors mentioned above—special sense, general sense, the notions of the understanding and the unity of apperception. 'Perceptions without notions are blind;' that is, the objects in space and time which we seemed already to possess in the Æsthetic, are not really objects till the categories of the Analytic have acted. Imagination is the faculty or element that makes it possible to combine the results of these two parts of the *Critique*. "Imagination is the universal intellectual menstruum, the universal vehicle of mediation between sense on the one hand and the functions of apperception on the other" (98). Through the synthesis of the imagination the pure notions of the understanding coalesce with the manifold of sense, as arranged primarily in time and secondarily in space. Time, as the pure form of the inner sense, faces both towards intellect and special

sense-matter. The imaginative synthesis of time gives certain "multiples," or modes of connexion, in which the nature of the categories is sensuously reflected. By the application of any one of these "multiples" to any given complex of sense-units, the complex in question is raised from mere subjectivity into the objective perception of a thing or of related things. But when Kant says that perceptions without notions are blind, he does not mean to say that the absence of the latter is synonymous with an absolute blank. Whether he ought to have said so, is another question. His actual assertion only runs that notionless perceptions are, as it were, not focussed. The first synthesis of the imagination precedes the action of the understanding, and is, as Kant says, "a blind but indispensable function of the soul". In this way the otherwise indifferent units of special sense get arranged according to the pure perceptive forms, and become, in the strict sense of that word, a manifold, ready for the action of the category. 'Die Anschauung bedarf der Functionem des Denkens auf keine Weise.' "Perception, so far as strictly sensuous," Dr. Stirling translates, "stands nowise in need of the functions of the intellect." To express Kant's meaning here and in numerous similar passages, Dr. Stirling employs the antithesis of "crude and elementary" and "finished and complete" perception.

"Perception as opposed to sensation involves more than the mere *feeling* of the latter. . . . Perception, as perception, . . . is awareness of an *object;* and an object is always something that a subject conceives itself to discern as different from itself, but presented to it, offered to it, as it were, for inspection, held up to it. . . . But an *Anschauung*, a perception, is only crude and elementary when . . . the sensible details of it alone stand before consciousness. We may conceive the details of time and space always to stand elementarily thus, from the first, and in the background, *sensibly* before consciousness. That is crude perception. Finished perception, complete perception, is more than that: we have then *an* object before us, a house, a ship, a cannon-ball, a cushion, a glass, a stone, the sun, water, ice, the air. And each of these we can see to consist at once of details of sensation, as well as of details of perception; but all combined at last into a single unity, which is at last, too, only a unity of *perceptive* details—the very sensations have become perceptions."

Dr. Stirling adds a number of vivid illustrations.

"Suppose some new object be brought from abroad and put before you: you perceive it at once; and yet you confusedly feel that you do not perceive it, you confusedly feel this, in fact, till, on a sudden light, you exclaim, it is a basket, a drum, a knife, an oar, a club, or whatever else. Now if you recall that sudden light, you will find that it leaped from the collapse of the detail—the sensible many—into unity. What happened, indeed, was, that all the particulars of the perceptive detail, darkly and disconnectedly before you, sprang suddenly together into the unity and light of the universal—basket, drum, knife, oar, club. . . . We really do not *perceive* until by the help of a notion we also *understand*."

Kant allows a wide range to the crude or uncategorised perception. The imagination under self-consciousness takes possession of the units of sense by running through them and giving them continuity.

Kant supposes the imaginative synthesis to take place by the immediate action of the unity of apperception upon the manifold of sense; it precedes, as a first synthesis, the second synthesis of the understanding through the categories. Whether Kant is entitled, on his own principles, to separate the unity of apperception from the categories, which are its own forms or modes of operation, is again a further question. But Kant goes even further. He not only attributes to the unaided synthesis of imagination a spatial and temporal laying-out of units, which are afterwards to be struck into unities or objects by the category; objects, such as we usually mean when we speak of objects of sense, are supposed by him to be given in their completeness before the category acts. This is most apparent in the case of causality, which, as Dr. Stirling said ten years ago, though the very key of Kant's position, is yet his special failure. The examples Kant gives place his meaning beyond doubt. 'When the sun rises, the stone warms.' Uncategorised sense is competent to this judgment; it is only the further judgment —'The sun warms the stone,' that it cannot attain to. The first, according to Kant, is a judgment of perception, and is only subjectively valid; the second is a judgment of experience, and owes its objective validity to the fact that it has been subsumed under the category of cause and effect. But the question immediately arises—What induced me to give my subjective sequence of perceptions an objective reference? Why did I bring the category into play, and why the category of causality rather than some other category? The sole ultimate reason that can be adduced for my procedure is that I recognise a connexion of this peculiar kind in the empirical facts presented to me. "There must be a hint in the empirical succession itself, which determines when quantity, when quality, causality, reciprocity, etc., shall be the proper category to act, and subsume into experience. The empirical succession that is to be grouped under causality, for instance, cannot be the same as that which is to be grouped under reciprocity. The empirical variety itself must be furnished with a cue, must, as it were, blow its own prompter's whistle, before my judgment can be expected duly to subsume it into the appointed checker" (101). This inevitable admission on Kant's part Dr. Stirling has dubbed, very aptly, the "empirical instruction"; and the latter part of the commentary is largely devoted to a recurrent exhibition of the necessity, on Kant's principles, and according to Kant's own statements, of such "instruction" from the side of things. The remarks upon Kant's two examples under the Transcendental Deduction—the objectivisation of the house according to the category of quantity, and the objectivisation of the sequence of fluidity and solidity in the freezing of water by the category of causality—bring out very clearly the difference between the two cases. "Space actually *was* quantity, in bodily form quantity; but time is not causality, not in bodily form causality" (439). In the first case, therefore, there was really nothing to add; in the second case, the whole peculiarity of the sequence must either be added by the category, or smuggled

over without acknowledgment from the empirical matter. Nevertheless it is plain that Kant wishes us to treat the two cases as on the same level, and the imaginary parallel may even have helped to blind him to the real state of affairs. Kant wavers, in short, between the view of sense as a chaotic manifold, compelled into order by the individual's forms and categories, and the view of it as an empirically ordered manifold, in which all determination belongs to the object, and is simply recognised by the subject. Ueberweg, it may be remarked, points out this wavering incidentally in a passage of his *System of Logic* (§ 38, E. T. pp. 81-2); but Dr. Stirling drives the charge home. Only on the former view could the subjective machinery of the categories be of real use; and Kant's first thought apparently was that they functioned in that way. But the pressure of facts—nothing less than an incorrigible world of real connexions—drove him speedily into the second position, which is summed up in the distinction already quoted from the *Prolegomena* between judgments of perception and judgments of experience. We see Kant there compelled "to postulate a rule subjective" as "the *cue* to the rule objective". The subjective rule, to precede the objective, was undoubtedly, Dr. Stirling says, "his last shift". At the same time, it is not a special position assumed only in this place for purposes of fence. It is the position in which Kant must be said to have finally rested; and it is the only position with which, on the whole, his widely varying utterances admit of being reconciled. In Dr. Stirling's words—"The whole affair is, how an empirical connexion (which as empirical is pronounced contingent) gets raised into the force of an apodictically necessary connexion". And in the end Kant only claims "fictitiously to *varnish* the laws of nature that already empirically exist" (489 and 513). It is almost superfluous to draw the conclusion from this searching criticism. It manifestly "sists the whole business, and we have only ruins around us" (440). "What is interrogative in Hume is only affirmative in Kant! What Hume hands to Kant as the problem to solve, Kant simply hands back to Hume as the solution to accept" (455). In short, Kant's entire industry is reduced to "a palpable begging of the single question".

It will be seen from the above that though, in its author's words, the aim of the *Text-book* is "only understanding and not criticism," there is yet a very strong admixture of the latter element. All through the exposition, indeed, there may be discerned a latent polemic of the expounder against the system he expounds. This finds voice now and again in the articulate suggestion of difficulties, which are at first preliminarily met in the spirit of the Kantian theory. But as the artificiality of the construction becomes more evident, the doubts make themselves more loudly heard; and towards the end of the commentary Dr. Stirling fairly abandons himself to his critical mood. His criticism strikes at the root of Kant's whole system, namely, 'the ideal theory'—the doctrine of the exclusive subjectivity of our experience—and the presupposition which goes along with it in Kant, that necessity of connexion is incompatible with an origin in sense. Space

and time and the objects perceived in them are, for Dr. Stirling, not congeries of our own sensations arranged in spectra of our own manufacture, but the real world of things behind which there does not exist anything to know. Everything, he seems to say, is derived by the individual from sensation; but the sensations or impressions come to us *charged*, so to speak, with all that we afterwards find in them. They are "signs of things" (p. 508), and as such have to be interpreted. But interpretation would not be interpretation if it added anything that was not there already. There is perhaps some danger of Dr. Stirling's statements being taken by the hasty reader as the language of unphilosophical dualism, or Natural Realism, as the doctrine styles itself when philosophically dressed. But the mistake would be gratuitous. The claim to cognise reality in its necessary connexions is precisely the claim that is advanced by a complete idealism, which, because it is complete, is thoroughly at one with common sense.

I cannot conclude this notice of Dr. Stirling's *Text-book* without expressing the hope that after such a drastic exposure of the failure of Kant's general scheme to do what was demanded of it, he may see his way to supplement this volume by another. He has shown us with admirable skill Kant, as Kant conceived his own position in relation to Hume. A second volume should make equally plain Kant's positive function in the historical development of thought. What was the vitally new point in his construction which made it possible for a Fichte or a Hegel to arise? If I read Kant aright, the new departure was due to his exhibition of the Ego as the magnetic unity to which all knowledge is related, and (in Hegel's regard) to his idea of systematising the categories. To this it must be added that he reduced the dualism of 'the ideal theory' to such a form that at a touch the whole theory yields and disappears. The bare abstraction of the *Ding-an-sich*, or of sense as sense, was something that could not live. Kant's confusion between sense as the "sign" of a real world and sense as the pure negation of intellect (the correlate of the thing-in-itself) prevented him from recognising the abstractions in which he was dealing. But if sense be taken, as it plainly must be taken, in the first of these two meanings, then the connexions expressed by the categories will be found, as Dr. Stirling argues, in sense itself, and the whole transcendental apparatus, so far as it is a merely subjective provision, will become superfluous. Only, however, so far as it is thus subjectively conceived. If Dr. Stirling would undertake such a volume as I have indicated, laying sympathetic hands upon the really permanent elements in the Kantian theory, he would not only confer a great boon upon philosophy, but also obviate the possibility of a misunderstanding of his own position.

ANDREW SETH.

Immanuel Kant's Critique of Pure Reason. In Commemoration of the Centenary of its First Publication. Translated into English by F. Max Müller. With an Historical Introduction by Ludwig Noiré. 2 vols. London: Macmillan, 1881. Pp. lxii., 511; xxxii., 735.

The Centenary of the first publication of the *Critique of Pure Reason* has been well celebrated. Germany has given forth numerous addresses and commentaries; America has held a Centennial Meeting and delivered orations; in England, there has appeared a new and in some senses even authoritative translation of the work itself. Certainly no higher honour could be paid to the *Critique* than to present it now, a hundred years from its first publication, as peculiarly helpful, nay, as indispensable for the English student of philosophy, and no greater boon could be conferred on the English philosophical public than to supply to it a thoroughly trustworthy and effective version of Kant's great work.

In the two handsome volumes before us more is contained than the *Critique* itself. The substantial portion, a complete translation of the text of the first edition of the *Critique*, fills the whole of the second volume. In the other volume we have, in the first place, a preface by the translator, treating generally of the reasons which induced him to think that the work of translation ought to be undertaken and ought to be undertaken by him, and noting the aims kept in view throughout his laborious task; in the second place, a translation of a sketch of the history of pre-Kantian Philosophy, from the earliest period to Hume, contributed by Professor L. Noiré, and occupying 360 pages; in the third place, a translation of all the passages introduced by Kant into the Second Edition of the *Critique*.

One may be allowed to remark, without pre-judging in any way the value of any portion of these volumes, that it is to be regretted the plan of publication did not allow of the whole *Critique* being included in one volume. For only in this way could the book appeal to the class for whom it is of the greatest importance, those engaged in philosophical study, not as masters but as scholars. Prof. Max Müller, indeed, hints in his preface that his work is not intended for "professional students" who must, of necessity, resort to the original, but for a "large class of men and women . . . who still draw their intellectual nutriment from the philosophical soil left by Locke and Hume". It may be doubted whether much effect, if any, will be produced on the minds of such a class by the translation of the *Critique*, but it is certain that the division into the two classes of professional students and outsiders omits the very section which the translator of such a work ought specially to have in view. The principles of the Kantian philosophy can be expected to leaven English thinking only if and when the study of the greater Kantian works forms an integral portion of the usual philosophic training of the rising generation, and, under present conditions, a translation of the *Critique*, such that it can be used with confidence and freedom, is the most important auxiliary for elevating the character of our

philosophic instruction. "True students," says Prof. Max Müller, "would as little attempt to study Kant without knowing German as to study Plato without knowing Greek." But, it may be replied, even apart from the fair objection that not five per cent. of those who study Kant can hope to have such command of the language as is possessed by a Max Müller, that such a mode of statement rests on a misconception regarding the order of study. A student is not at all points of his training a "professional student"; he does not read the *Critique* once and have done with it. He meets it at all stages of his philosophic progress, and subjects it to an ever-altering style of study. A good translation may be the only means whereby a first introduction is obtained to a kind of thinking of which otherwise he might remain in ignorance, and further may serve as a constant aid in later more matured study of the work. It is, under existing conditions, of such pressing importance that the Kantian method should form part of the normal training in philosophy and that the minds of students should be enlarged by contact with the Kantian ideas and invigorated by the systematic study of the Kantian masterpiece, that a translation of the *Critique* is not only desirable, but is to be demanded on grounds distinct from those on which translations of the great works of Greek speculation might be demanded. Were the latter, indeed, of such immediate utility as bearing on the problems of modern thought, if, *e.g.*, the fundamental ideas and method of the *Metaphysics* of Aristotle were really of a significance for present thinking at all comparable to that of the *Critique*, and were the conditions of study the same in their case as in that of the Kantian works, translations of them might be demanded with equal reason and defended on the same grounds. It may be feared, therefore, that the form in which it has seemed good to Prof. Max Müller to give us his translation of the *Critique* will put an obstacle in the way of exercise of the influence it might justly hope to have. It ought not to have been impossible, and it would, we think, have been practically best, to include in the compass of one volume, to be procured separately, all the matter of the *Critique*. For the student, who is primarily appealed to by such translation, the extraneous matter making up this first volume is mere lumber.

As regards the choice of text to serve for basis of translation, a remark may also be permitted. Prof. Max Müller has given reasons, partly personal, partly general, for preferring the First Edition as the substantive work, and, no doubt, in a question of this kind, where personal opinion must have considerable weight, it would be hard to say that a decision either way can be final. Nevertheless, I think one may regret that the English translation, in its continuous portion (that making up Prof. Max Müller's second volume), does not present to the student the *Critique* in the form in which Kant himself was contented that it should rest finally before the world. Many valuable hints towards interpretation of the *Critique* are unquestionably to be drawn from what is special to the First Edition, and in particular the first treatment of the Paralogisms of Reason is both richer and more

thorough than what is given in the corresponding section of the Second Edition. Still the parts withdrawn from the First Edition were withdrawn by Kant himself, and they must be regarded, in relation to the *Critique* as a whole, rather in the light of commentaries than as integral members. Translation of them should certainly accompany translation of the whole *Critique* in its second form; but to place them in the supplement seems better to represent the relation of the two texts than the plan here followed.

A translation of the *Critique*, appearing at this date, when for some years past there has been, even in this country, earnest and strenuous study of the Kantian philosophy, both in the mass and in details, and when, consequently, a fair general knowledge of the fundamental features of the system and of its bearing on special problems may be safely presupposed, cannot but have a standard of criticism applied to it differing in many respects from that which would have served to judge of earlier attempts at transplantation of so original a product of foreign thought. In such a translation one has a right to expect not merely the mechanical accuracy which adequate knowledge of the two relative languages may yield, but that higher accuracy which can be obtained only if the mind of the translator is so saturated with his subject that he can trace from point to point, from sentence to sentence, the consecution of the thought that lies before him. A good translator of Kant must be at the same time a good interpreter of Kant. Not, indeed, that interpretation should ever be allowed to take the place of translation, but because translation with intelligence is simply impossible unless the precise significance of each sentence, with its bearing on the whole of which it forms part, is clear to the mind of the translator; and this implies that the translator is verily reproducing in his own thoughts the thoughts of his author. The Kantian text, it is true, makes no small demands upon the skill whether of translator or of interpreter. For the style, by no means so unmanageable as is currently supposed, is rendered difficult and in some places obscure by two somewhat opposed causes;—by the closeness of connexion in which the several parts of a complete thought stand to one another, a closeness not easily represented when the statement of the thought itself occupies some space; and by the continuous tendency on Kant's part to repeat, with ever new and slight modifications, some previously established thought, so as to guard it against undue extension or possible misapprehension. Moreover, while systematic plan and method are discernible in the *Critique* as a whole and in its leading divisions, yet, probably from a well-known historic cause, the successive paragraphs rather resemble transcriptions of Kant's thinking as it proceeds towards determination of his object, than expositions from the point of view attained. Rarely are the results expounded in systematic form. The successive steps in the development of each thought are chronicled as they are taken, and each new sentence brings in, as it were, from the surrounding thoughts of the writer, supplement, correction, justification, reference to what has been achieved, distinction from what is yet to be accomplished, and

so on. Only in the later portions of the *Critique*, in many sections of the Transcendental Dialectic, for example, and in the Methodology, does Kant's style acquire freedom or sometimes even expository power and elegance.

Further, if a translator of the *Critique* should now think it necessary to preface his work with some Introduction to Kant, such introduction, to establish a *raison d'être*, must have something to distinguish it from the manifold sketches of philosophy as a whole or of Kant's philosophy in particular that are otherwise readily accessible. No doubt, the distinctive feature of such an introduction must depend on the aim the translator has in view, but it must be regarded as a misfortune, if from a somewhat mistaken aim a useless kind of introduction is adopted. In our view, the presentation of the *Critique* for English students should either be accompanied by no introduction at all, or should contain a careful and minute study of the historic features of only those problems on which, as it is known, Kant's activity was at work in the preparation of the *Critique*. In other words, if there be an introduction, it should consist of an accurate statement of the problem of knowledge as handled by Locke and Hume on the one hand, by Leibnitz and the Wolffians on the other, and of a concise review of Kant's previous essays towards solution of this problem. Any general sketch, of wider dimensions, must of necessity be vague, and its substance ought, in justice, to be presupposed in the preparatory training of the student.

In his prefatory remarks, Prof. Max Müller has explained, to some extent, the aim of his translation. That aim, as above indicated, seems to us erroneously conceived. The book, to be really of value to the English public, should not appeal primarily to the class Prof. Müller has in view, but to the smaller class of students of philosophy. The reflection cannot be avoided that the idea of his special aim has somewhat disturbed the clear judgment of the genial translator. Assuredly it is not needful for him to offer explanations of the reasons inducing him to spend time over the execution of so laborious a task as the translation of the *Critique*. He has given much to the English public, but hardly any boon could be greater than a thorough and trustworthy presentation of Kant's classical work. All philosophic students, professional or otherwise, owe him a meed of thanks for the toil he has undergone in their service, and, if one may be allowed to say so, their estimate of the qualities required in the competent translator of Kant is such that no man need turn back his hand from the task under the idea that it may be unworthy of his powers.

With what Prof. M. Müller says of the importance, nay, the necessity of study of Kant at the present time, one would heartily agree, and the force of his remarks regarding the extent and kind of knowledge of German required to do justice to the *Critique* cannot but be felt, even though one would supplement them by reference to other no less essential qualifications of the translator. But it is to be regretted that he has deemed it needful, even for the uninitiated, to produce testimonials in support of Kant's claims to attention, and of

service to give the briefest summaries of Kant's work in relation to his predecessors. The sentences relating to Hume and Berkeley (I. p. xxvi), based, no doubt, on the corresponding remarks of Kant in the *Prolegomena*, are calculated to stagger the initiated and mislead the uninstructed. One should be on one's guard, indeed, in assigning value to any historic statement made by Kant. Such references are of interest as indicating his own state of mind, but for the most part are utterly valueless as historic expositions.

So, too, one cannot but describe as a *mauvaise idée* the notion of the filiation of philosophical systems (I. p. xix) which has resulted in the acceptance of Prof. Noiré's historical sketch of all previous philosophy. In the 360 pages occupied by Prof. Noiré the entire fortunes of philosophy are delineated in historic pictures, in the broadest outlines and with the use of rough brush and strong colours. It is not our wish to speak disrespectfully of Prof. Noiré, who indeed is otherwise known to us through only one of the considerable number of his works. From such slight knowledge, one would not have been inclined to accept any historic sketch by him as certain to be of high value. But in the testimonial here accorded to him by Prof. M. Müller (I. pp. xix-xx) stress is laid upon a special point, *viz.*, possession on the part of Prof. Noiré of very complete knowledge of the *ipsissima verba* of the great philosophers, and one is given to understand, by implication, that the historic sketch is to be a presentation of the essence of each thinker's results in his own terms. As to the value of any such sketch *in ipsissimis verbis*, there may be doubts; it is barely possible in the case of the Greek philosophers; it may well be deemed quite impossible in the case of the moderns; but that the history here given does not correspond to the implied description there can be no doubt. The style is of a rapid and somewhat tumescent character. In few cases are *ipsissima verba* given which go beyond or even come up to the common stock that has long passed into the possession of all writers of brief histories. The exposition is continuously interrupted by critical comparisons with the latest speculative ideas, and generally is so coloured by reference to these ideas as to become almost chaotic. The whole reads like history in a fever, and the resulting impression is that of whirling confusion. Prof. Noiré reposes far too much confidence in his philosophic guides, Schopenhauer and Lange, who obtrude themselves in every quarter, and in one case at least, in the account of Hobbes, has suffered himself to be misled into quoting, apparently as *ipsissima verba* of Hobbes, an abridged and faulty interpretation by Lange. The whole account of Hobbes, indeed, even to the quotations, appears to be taken from the *History of Materialism*.

Our concern, however, is not mainly with the merits of Prof. Noiré's work (though in passing one would enter a mild protest against the new term, *Henism*, with which he and his translator have enriched the philosophical vocabulary, and also suggest that some emendations of pp. 58-9, and 90, which are very obscure, might be effected), but with its appearance here as an integral portion of the English translation of

Kant. Under this aspect, it can only appear in our eyes as comprehended under the well-known definition of dirt, *matter out of place*. The very best sketch of the kind, and surely with an English translation of Schwegler to hand more was needless, is out of place as a preface to Kant's *Critique*. No book stands so little in need of a general introductory outline of previous thought. The student who is to derive full benefit from its study ought doubtless to have his mind well trained by acquaintance with the history of speculation, but what student could ever derive knowledge of a kind to be serviceable in the study of the *Critique* from a sketch in which the historian literally strides in seven-league-boots over the centuries of philosophic development! The history of philosophy and an historical introduction to Kant are entirely distinct.

Prof. Max Müller, then, seems to have been under a misconception as to the nature of the introduction required, and also, if one may say so without advancing detailed proof, to have over-estimated the merits of his collaborator's contribution. One need not therefore regret that the limits of space rendered impossible the farther insertion of Prof. Noiré's analysis of the Kantian philosophy itself (I. p. xxv.). When that analysis, which is promised in German, appears we shall be prepared to consider its value, and also the worth of the present sketch, which may, perhaps, be then in place as an introduction.

It now remains to speak of the translator's own share, by far the heavier and more important, in these two volumes, and here it must at once be said that we do not profess to have compared with the German text all the 885 pages that make up the translation. Some sections we have read rapidly, on others we have bestowed a minute and scrupulous study. On the foundation so supplied, a fair estimate may perhaps be formed of the value of the work.

On the whole the translation appears to us to be a faithful and excellent piece of work. It is, as might be expected, far superior to the other complete presentations of the *Critique* in English, those of Haywood and Meiklejohn, and generally the form of the work is such as to render it fit for use by English readers. The great difficulties attaching to many passages are very successfully overcome, and when Kant's own style becomes freer and larger, the English version acquires force and even elegance. The awkwardness and roughness, discernible in most attempts at reproduction of Kantian German in English dress, are almost absent from Prof. Müller's pages.

While acknowledging, however, the great merits of Prof. Müller's labours, and offering to him the thanks of English students for the good work he has executed for them, we are constrained to add that the ideal translation does not yet seem to have been attained. We have noted, in the sections more carefully considered, a certain tendency to omit or to turn in somewhat loose fashion those connectives (adverbs or conjunctions) by means of which the transitions of Kant's thought are evidenced, an occasional slackness in the use of equivalents for technical terms, and, in more than one instance, mistranslation arising apparently from inadequate comprehension, not of

the words, but of the meaning. Without endeavouring to throw them into any systematic form, we would draw attention to the following notes, which illustrate some of the points of weakness in Prof. Müller's work :—

Vol. I., p. 491, lines 7-10 : Want of attention to the position of the period has brought about an utter confusion. According to the translation Kant is made to say—"Metaphysic does not require these ideas for the sake of natural science ; but, in order to go beyond nature, a right insight into them would make theology, &c. . . . ." But in the text there is a period after the clause 'in order to go beyond nature,' which therefore refers to the preceding clause ; and the words 'A right insight' begin a new and independent sentence.

I., 493, ll. 7-6 from foot : "but the identity of the subject of which, in all its representations, I may become conscious". According to our English idiom, *of which* here refers to *subject;* but, according to the text, the reference is to *identity*. The sentence should run thus : 'but the identity of the subject, of which (identity), &c.' The difference is of the greatest importance.

II., 65, l. 4 : "*collected* members of the subdivision" should be the '*total* members'.

l. 12 from foot : "intended knowledge"; better : 'the cognition in question'.

ll. 8-7 from foot : "all being contained within the whole sphere of the subdivided knowledge" is neither quite correct in meaning nor an exact equivalent for Kant's peculiar German expression, which may be rendered 'all together making up the whole sphere, &c.' The reference is to the exhaustive enumeration of the disjunct members of a whole.

II., 69, l. 11 : "to a certain extent" is not a good version of "zu einem gewissen Inhalte".

l. 10 from foot : "Pure synthesis in its most general meaning gives us the pure concept of the understanding." This is a bad version, and probably would not have been given by a translator sufficiently alive to the significance of the Kantian philosophical terms. "Allgemein vorgestellt" must be translated literally, 'represented generally,' or more freely 'taken in its utmost generality,' while "gibt" should be translated 'constitutes'. The meaning of the whole is : "Now pure synthesis, when taken in its utmost generality (*i.e.*, viewed apart from all those modifications which actually are found in syntheses of various kinds), constitutes the pure category (notion of the understanding)".

II., 70, l. 14 from foot. A similar error appears in the version of "allgemein ausgedrückt," which cannot be translated, as here done, "in a general way". The whole sentence, indeed, fails to convey Kant's meaning, and from the punctuation it is impossible to discover the antecedent for *which*. Kant is not saying that the unity introduced by the function of understanding into the synthesis of intuition "may in a general way be called the pure concept of the understanding," but that this unity, "taken generally, is called the pure category".

II., 128, l. 3 from foot. "Comprehension" is not a good equivalent for "Inbegriff".

II., 132, l. 13 : "blos erschlichenen Behauptung" is surely stronger than the version "purely gratuitous assertion"; rather 'surreptitious'.

II., 164, l. 9 from foot. The whole paragraph presents a mangled appearance. "Zustand" should not be translated by "condition". "Berichtigung" is probably better 'rectification' than "right understanding". But taken altogether the English version renders it quite impossible to follow the somewhat subtle distinctions of the German text.

II., 171, l. 7. "If experience teaches us" is quite an unnecessary freedom taken with the text "Wenn wir also erfahren".

II., 173, ll. 4-5. "Of that which one wished to predicate of the object." This is a sentence to make one gasp and wish to predicate something of the translator. Kant is asking what is the significance of the reference to an object which attaches to some of our representations. This, he says, cannot consist in their relation to another representation, "in der Beziehung auf eine andere Vorstellung," and then adds parenthetically "(von dem, was man vom Gegenstande nennen wollte)": 'of that which one would call (representation) of the object'. The structure is clumsy enough, but the meaning, especially if the following clause is taken into account, is sufficiently clear. Objectivity cannot be explained by reference to another representation, the representation of the object, for this, nevertheless, still remains *representation* and not *object*.

II., 173, l. 14. "On the other hand" as a translation of "umgekehrt" entirely alters the meaning and throws the whole sentence into confusion. The sentence, moreover, is one of the utmost importance.

II., 175, l. 8. The word "alone" occurring here must depend on some misreading. Perhaps for *allen*, which does occur, Prof. Müller has read *allein*.

II., 178, l. 16: "temporal relation of dynamical relation" is unnecessarily uncouth. The German allows, nay, insists on 'temporal relation of dynamical nexus'.

II., 179, last line: "exist" is not good for "liegen".

II., 182, l. 17. "Every change has a cause which proves (beweiset) its causality, &c."; "beweiset" should here be taken in its sense of 'makes good,' 'realises'.

II., 222, l. 10 from foot. A very curious error here obtrudes itself. "No objects can be assigned to noumena." Kant says nothing about noumena, and certainly the phrase has a very puzzling effect. Prof. Müller in translating has substituted "noumena" for the pronoun "den letztern," which does occur, but which refers to the previous distinction between sensuous and intellectual notions (not *intelligible* as here translated). 'No objects' then 'can be assigned for intellectual notions'.

II., 279, l. 11: "ought to determine". The German text is merely "bestimmen werden" = 'will determine'.

II., 309, l. 7. "A representation, which is only directed towards a person by the verb" does not seem to be an intelligible or correct version of "Vorstellung, die nur das Verbum in Ansehung einer Person dirigirt".

II., 311, 323. "Erscheinung" is twice translated by "appearance," which is rarely, if ever, an adequate equivalent.

II., 313, l. 12. "Matter" is evidently a misprint for *latter*, and in the succeeding clause the not unimportant word "innerlich" is omitted.

II., 314, l. 12 from foot: "permanent in that phenomenon to which, as the subject, &c." The arrangement of the words in the English version would inevitably lead to the conclusion that *phenomenon*, not the *permanent*, is the antecedent of *which*.

II., 315, middle paragraph. The whole is far from clear, and the meaning, not of the most evident, is obscured by omission of Kant's italics. The word 'necessarily' is left out of the last sentence, and is certainly required.

II., 317, ll. 3-14. This difficult passage is less intelligible in the English than in the German. "To establish personality" (lines 6-7) does not seem accurate.

II., 322, middle paragraph. The sentences are so broken up in the

English version that they fail to convey the sequence of Kant's reasoning.

II., 324, l. 9. The word "enabling" has no warrant, and is misleading.

II., 324, last line: "possibility of *existence*" cannot be accepted as translating "Möglichkeit des Beisammenseins".

II., 327, l. 3 from foot: "because they affect what we call the external sense". "Affect" is by no means to be taken here as translating the verb "anhängen," which is simply '*are connected* with,' 'are related to'.

II., 330, l. 17 from foot. "Suggests" as version of "an die Hand gibt" is quite misleading, and introduces a foreign element into Kant's doctrine. Read 'supplies,' as the same phrase is translated on the preceding page.

II., 334, l. 11: "acquire cohesion in experience"; better, 'are conjoined in one experience'.

II., 340, l. 9: "In all practical questions". According to the text, the version should be 'In all the problems which may present themselves in the field of experience,' and considering Kant's technical use of the term *practical*, we are inclined to disapprove of any deviation.

II., 385, last sentence: "Nevertheless, when this subject is looked up externally, as an object of intuition, it would most likely exhibit some kind of composition as a phenomenon." The relative text is "Nichts destoweniger wenn dieses Subject äusserlich, als ein Gegenstand der Anschauung, betrachtet wird, so würde es doch wohl Zusammensetzung in der Erscheinung an sich zeigen". It appears to us that "looked up externally" is a bald and bad version of "äusserlich *betrachtet*," = 'treated (looked at) from an external point of view,' and that the words "so würde es doch wohl, &c.," may rather be rendered 'it would undoubtedly exhibit a composite structure in its phenomenal appearance'.

II., 59, l. 12 from foot. "Nichts weniger als systematisch" ought to be 'anything but systematic,' not "nothing less than systematical," which last phrase, if correct English at all, suggests the very reverse of the true significance.

We put forward these brief notes, by no means all that a careful scrutiny would yield, to illustrate the general remark that the translation now presented to us stands in need of a thorough revision from the philosophical point of view. Most of the sentences to which we object contain something which at once jars upon a student of the matter of Kant's *Critique*. Many sections of the work, on which space forbids us to comment, present in like manner small inaccuracies of punctuation, arrangement of sentences or rendering of connectives, which would also fall to be removed in the course of such a revision. While the translation, as it now stands, will easily supplant the other English versions, and may be read with both pleasure and profit, it does not yet satisfy the demands that may be justly made by the philosophical student. We venture to express the hope that an attempt will be made to issue it in such a form as to be readily accessible to students, and that advantage will be taken of the opportunity so afforded for removing the imperfections which at present prevent it taking the highest rank as a classical version of a classical work.

R. Adamson.

A Sketch of Ancient Philosophy from Thales to Cicero. By Joseph B. Mayor, M.A., Professor of Moral Philosophy at King's College. Cambridge University Press, 1881. Pp. 254.

This handbook, which makes an attempt, and with considerable success, to comprise within the bounds of about 250 pages the history of Græco-Roman speculation up to the eve of the Christian era, will do a service to the numerous class who have to train for examinations. It will probably convey also to the general reader a more precise and distinct impression than is easily attainable otherwise, both of the two moral treatises for which Plato and Aristotle are chiefly read at the present day, and of the doctrines professed by the Stoics and Epicureans. The little work is clearly written, full of details, rich in references, studded with dates, and, considering its size, amply varied by translation of the *ipsissima verba* of the ancient thinkers. Its moral and religious tone is thoroughly correct.

But whilst its adaptation to certain popular wants of the time, both inside and outside the Universities, may give it a temporary acceptability, its permanent value as a manual of ancient philosophy is in an equal degree lessened. The book cannot and does not disguise its original growth out of an Introduction to Cicero's *De Natura Deorum*. In consequence of this aim, the ethical and theological features of ancient thought are elevated to disproportionate prominence. And at the same time, the commanding position in which Cicero is placed gives what, on abstract grounds, must be treated as an exaggerated importance to the eclectic philosophies of the Post-Aristotelian schools, and enters on the muster-roll names which, apart from their bearings upon the labours of the Roman orator, might have been left to their repose in the erudite pages of more minute chroniclers. Hence arise results like the following. Two-thirds of the space allotted to Plato is occupied by a critical abstract of his *Republic*, whilst three pages describe his general philosophy. In the case of Aristotle thirty pages at least are given to an analysis of the *Ethics* and *Politics* (presenting *inter alia* a list of Aristotelian virtues, which, save for the omission of justice, would be more completely drawn out than Aristotle's own); while the logic, physics, metaphysics, and all the rest of the Stagirite's encyclopædia are disposed of in about 15 pages. And a curious instance of the same tendency to regard the *Ethics* as equivalent to Aristotle, is seen in the quotation, with approval, of a remark by Sir Alexander Grant: that "on *all* questions Aristotle endeavours to put himself in harmony with the opinions of the multitude".

In the account of the so-called Pre-Socratics there still survive remnants of views which, if they ever did service, have probably now become only misleading. Such are the attempts to institute a distinction between the Ionians and the Dorians in philosophy; the old habit of inventing a teacher and a pupil so as to complete the line of philosophical succession: and the violation of chronology which insists on placing Democritus before Socrates. More misleading, though less peculiar to Prof. Mayor, is the absence of any indication

that the speculations of these early philosophers rested on a more or less real basis of scientific observation: and that though in most cases their guesses about the vast unknown are all the memory which they have left, still, in the case of several, such as Anaxagoras, we know the scientific advance which determined and sustained their speculative ideas. Descending to minutiæ, it may be noted that Aristotle did *not* style the early thinkers "drunkards," and that there is scant authority for the statement that Diogenes of Apollonia had to quit Athens. Indeed, generally there is perhaps too great readiness to state as certain fact many very dubious points in connexion with the history. Some of the translations from the Greek are questionably accurate: *e.g.*, that from Democritus distinguishing between "genuine" and "obscure" judgments, would probably be nearer the original if 'legitimate' and 'illegitimate' were substituted.

In the second period of Greek philosophy, we are met by the statement that "the general features of the Sophistic period are photographed in the *Clouds* of Aristophanes and in Thucydides' chapters on the Plague of Athens and the Corcyrean revolution". Surely this is hard measures on the age of Pericles and Sophocles: and an unwise ignoring of Grote's rehabilitation. And is it right still to give as an historical explanation of the famous dictum of Protagoras the version that "what each man holds to be true is true for him"? In the case of Socrates it is good no doubt to call attention to his somewhat crude arguments from design (supposing, that is, that they are his arguments, and not those of a forger). But it is even more necessary in estimating him to call attention to what must have seemed, even to not very sentimental minds, his hard and crass utilitarianism, presented, as it is, so openly by his professed apologist, and potent, as it probably was, in drawing upon him the charge of a corrupter of the young. And on minor points, it may be noted that abstinence from marriage (witness Hipparchia) was far from being a characteristic of the Cynics: that the fondness attributed to Diogenes for speaking of himself as the Dog requires confirmation; and that it is worth enquiring whether the Cyrenaics really conceived it as the business of philosophy "to estimate and compare pleasures and pains".

The analysis of Plato's *Republic* will no doubt be handy where there is not time or patience to peruse the original. But it may be doubted whether it is safe to say that Plato built ethics on the foundation of psychology, except in the sense that psychological facts supply the material for ethical laws. And when Plato's psychological analysis is pronounced defective, because it entirely omits the benevolent affections, it may be replied that Plato, treating of the natural endowments of the natural and individual man, did not find benevolence otherwise existing than through the influence of society. Plato's main psychological error was an utterly insufficient estimate of the sexual passion.

The account of Aristotle is fuller and more successful than that of Plato. But it is a doubtful compliment to the author of the criticism (in *Ethics* Book I.) on Plato's Ideas, to say that, though the arguments

are not very clear, their general purport is to prove that the "Ideal Good" is something unintelligible. Is the purport not rather to conclude (rightly or wrongly) that good and morally-good have little or no connexion with each other? And it sounds a remarkable criticism to say that the writer of the essay on Friendship (Love) omits benevolence: and to add that "the main defects of his system arise from his defective idea of our relation to God". Surely they arise more obviously from his misconceptions of our relation to our fellow-men, not to say to "barbarians".

The Post-Aristotelian period comes off best. Prof. Mayor gives a really good and useful account of the schools contemporary with Cicero. Sometimes perhaps (as in the exposition of a distinction by Carneades, which Sextus Empiricus appears to give differently in different passages) it might be wished that less room had been occupied by contested points. No doubt the Stoics, turbulent, ambitious, and arrogant, though they sometimes seemed to contemporary eyes, had a fine moral tone and dignity in their conception of life; and Epictetus at least has a reality of pathos which every honest heart reveres; but it is hard on the Epicureans to turn so persistently to the unfavourable aspects and issues of their doctrine. What in the Stoic is but a choleric word, in the Epicurean is rank blasphemy. It would almost seem when the letter of the dying Epicurus to Idomeneus is styled "an imitation of Stoic bravado," as if the Stoics had made good their claim to a monopoly of ideals. Even the Stoics however are obliged to conform to Christian ideas. When it is remarked (p. 168) that a saying like this "The life of the wise man is in no respect inferior to that of the Gods, except in duration" means to assert only "the doctrine of a Divine presence in the heart of man," one cannot repress the suspicion that Prof. Mayor has not fully grasped the antipathy between the Christian and the Stoic position.

The pages on Cicero are interesting, and it is a pleasure to hear stated the good points of that much-abused man. Yet in his estimate of Cicero's beliefs, Prof. Mayor perhaps loses sight occasionally of the fact that Cicero's faith is, like the chameleon, very much of the colour of that on which it feeds—generally following the sect from whose authorities he is at the moment translating.

W. WALLACE.

Das religiöse Bewusstsein der Menschheit im Stufengang seiner Entwickelung. Von EDUARD VON HARTMANN. Berlin: Duncker, 1882. Pp. xii., 627.

We are reminded by the advertisements swathing this volume that it is at least the 16th "des berühmten Verfassers," and that several of its forerunners have attracted the utmost attention and caused the greatest excitement in the Fatherland, fluttering the dovecotes of Church, State, and University. The last and longest of them, *Phänomenologie des sittlichen Bewusstseins* was reviewed in MIND XIV.; and with that work the present one, resembling it in extensive and

systematic treatment, is also in its subject closely connected. *Die Philosophie des Unbewussten* had taught that the Omniscient Unconscious strives to attain in man the fullest consciousness in order to convince itself that positive happiness is a desperate quest, and thus disillusioned to procure freedom from pain or negative happiness by renouncing existence. The recent ethical treatise exhibited moral progress as the ever clearer recognition that Duty consists in furthering the purpose of the Unconscious Absolute. And the present work treats the history of Religion as an evolution of the consciousness that the same Absolute Divine Spirit is the true object of worship and religious service.

The exposition begins from the brutes. That wild animals have no religion is attributed not to their want of the requisite emotional basis, since the higher species display love, gratitude, humility, repentance, and other virtues, but rather to their incapacity of observing the natural phenomena most stimulative to religious feelings—the heavens, heavenly bodies, and meteorologic changes. Not that they cannot perceive these things, but, preoccupied by practical needs, they cannot regard them in the right way. Tame animals, however, especially dogs, appear to deify their master, and in proportion to his mental and moral superiority, his goodness and justice: not if he tease the would-be devotees, or associate with them too much on terms of equality. Thus to the brute, spiritual existence is revealed in another before a consciousness of it has arisen in itself, whereas the man can only discover the spirit in nature after having reached the conception of his own.

The man's understanding, occasionally free from the task of plotting to satisfy immediate wants, begins to direct partially disinterested observation to the heavens; which although at this stage of culture they do not directly concern him, yet indirectly may do so, and thus engage his curiosity. But as such an attitude of mind is too cold to awaken religious consciousness, we must consider his susceptibility to æsthetic impressions, especially the sense of sublimity. By a florid sketch of day and night and a turgid description of a thunder-storm the author seeks to impress us with the way the savage would be impressed, and observes that this æsthetic awakening gives the warmth of feeling characteristic of religion but wanting to mere curiosity. The æsthetic feelings are aroused not in their pure disinterestedness but perturbed by fear and hope; the storm is not only sublime but devastating; the morning not only beautiful but encouraging; and thus partially disinterested feeling associates itself with partially disinterested understanding. The heavens contemplated in such a temper are seen to be light-giving (a frequent attribute of Divinity) in contrast with darkness; imperishable in their cyclic recurrence, unlike plants and animals that die and return no more; still something besides resplendence and duration belongs to the notion of Deity. We see, however, that this something else is also implicitly present when we remember that the senses of the natural man are so suffused with imagination that—

"all the mighty world
Of eye and ear, both what they half create
And half perceive,"

is for him an inseparable whole, and all nature alive. He is a born poet and conceives of nature as the modern poet does. The appropriate objects of primitive man's religious consciousness, therefore, glorious and everlasting, are also conceived to live or, summing the last two attributes, to be immortal.

The gods thus created are not merely related to but identical with the sensuous objects that suggest them. Hence there are no idols until the second stage of religious progress, Zoomorphism, when imagination has confounded meteorology with zoology, seeing a snake in the lightning, in the scudding cloud a milk-shedding cow chased by a bull, in the horned moon a dew-shedding cow, and so forth. Zoomorphism everywhere precedes Anthropomorphism, partly because animals furnish easier comparisons with the heavenly bodies, but chiefly because to primitive man animals, exceeding himself in strength and swiftness, the only excellences he appreciates, best represent the power of the gods. It is only at a later stage of culture, when the use of weapons establishes man's superiority, that the human form is preferred for expressing the divine nature.

In representing the gods as beasts or as men, primitive man does not sunder them from the elements in which he first beheld them; nor from one another to the extent of denying their identity. To question whether they are one or many does not occur to him. Such arithmetical opposition, insuperable in our age of understanding, is not felt in the ages of imagination. The first state of Religion is not Polytheism but Henotheism. Whilst worshipping any single god, the natural man contemplates the godhead, not to the exclusion of the other gods, nor yet to the neglect of them, but rather—it is hard for a mere man of understanding to express it. The supremacy of imagination makes this attitude of mind possible, but it is also supported by a certain consciousness of the essential identity of the gods: not indeed a conscious consciousness of it, but an implicit unconscious divination of unity underlying the ostensive multiplicity. With a race inclined to mysticism the implicit unity may absorb the multiplicity and become Abstract Monism, as we see in Brahmanism. With a race prone to sensuous realisation the unity may be hidden by the ostensive multiplicity and a true Polytheism emerge: or if one amongst the many acquire supremacy, exclusive Monotheism results. The sense of the essential unity of gods expresses itself by the fiction either of relationship or of emanation: the former mode is most natural to the natural man, the latter belongs to a later period of reflection: the doctrine of the Trinity embodies both modes.

Primitive man's conception of his relation to the gods is determined by his selfishness; they may be useful allies or dangerous enemies, therefore are to be propitiated by prayer and sacrifice. But this egotistic view necessarily transforms itself into a moral one. He needs help chiefly against fellow-men, and as society advances, security against

them increasingly depends upon their observing certain rules of crude justice. Accordingly, on behalf of these rules he invokes the gods, and by the force of his wishes and by association identifies the rules with the divine will. He thus unwittingly endows the gods with moral attributes, connects their commands not with his own wishes but with the customs of his tribe, so that should he himself infringe those customs he must recognise that the gods are against himself.

Where Polytheism has established itself, it may exhibit a subordination of ranks, or all gods may be free and equal. In the latter case, if the subdivision of natural deity has gone so far that every mountain, river, and tree is a god, the perplexed worshipper having no other principle to direct his devotions to an object, pitches upon the nearest. And since the power of these local gods seems less than that of sun and storm, the worshipper's self-interest leads him to ascribe to his own river or hill invisible forces to eke out their apparent incapacity to assist and defend him. Such unseen powers rather than the natural object then attract the religious consciousness, and Dæmonism or Animism results. Belief in such dæmons is assisted by the belief, meanwhile developed from experience of dreams and trances, in the separate existence and immortality of human souls; hence also the worship of deceased ancestors. Fetishism results from the degradation of image-worship, when the worshipper's thoughts dwell on the image itself, oblivious of the god whose image it is.

The above abstract of Herr von Hartmann's first hundred pages on Naturalism suggests many difficulties. Neglecting the wild beasts and even the dogs, it is to be observed that the author attaches a very wide and vague meaning to the phrase "natural" or "primitive man". It seems to cover such different periods of culture as might take hundreds of thousands of years to succeed one another. He speaks of "the first form of natural religion, of which all mythologies more or less preserve traces, and which we see most clearly in the *Vedas*". But to an anthropologist the *Vedas* are modern compositions. When he says, too, that "the oldest languages are far richer than the modern in synonyms" he must mean "oldest" in a very qualified sense. For such a primitive man, however, great latitude of prevalence in time is needed in order to unite his extraordinary traits of mind and character. At the earliest dawn of religious consciousness, his disinterested curiosity about the weather is very enviable, seeing how much more important it must be to his nakedness than to us, not only in this unhappy isle, but even in balmy Berlin. Still we see that he was not quite unconcerned about it. As far as the author's argument requires him to have been so, he was; but in as far as it requires him not to have been so, he was not. The natural man's æsthetic impressionability, especially by the sublime, goes a step beyond it, and agrees very well with the warmth and phantasmic vigour of imagination which incapacitates him for distinguishing the living from the lifeless, and for which the author with unconscious irony compares him with the modern poet. For this imagination to identify lightning with snakes, and clouds with cows was easy; and a discursive reason

is provided to match. Accounting for belief in an under-world, abode of the dead, von Hartmann says:—"A simple reflexion teaches that if the Heavens are represented as world-embracing and all-comprehending, they must have another half remote from us". Explaining the prominence of the sun in mythology, he says:—"The simplest observation teaches that all the light of other objects, even of the sky and stars, is only borrowed sunlight". Perhaps so; but if these reflections are easy to primitive man, it is the more wonderful that he should get into the muddled state of mind which seems necessary to a sound Henotheist. That a creature of so much insight should not distinguish between one and many must be due to the unconscious teleology by which facts prearranged themselves in anticipation of the above theory. But such, we are to understand, was our ancestor's condition before the use of weapons made him feel his superiority to beasts.

The short paragraph in which our author explains the origin of belief in ghosts bears so much resemblance to certain chapters of Mr. Tylor and Mr. Spencer, that he can hardly be unacquainted with the doctrine that religious ideas arose from the worship of deceased ancestors. This view is a formidable rival of his own and similar ones: but he nowhere notices it. Perhaps he will follow up his criticisms of Mr. Darwin with a volume on *Wahrheit und Irrthum im Spencerismus;* and when it has appeared we shall wait with interest for the reply.

Let us now take the liberty to pass over four or five hundred pages which treat of the modifications of Henotheism amongst the Greeks, Romans, and Germans; its systematisation by the Egyptians and Persians; the Absolute Monism of Brahmins and Buddhists; and at great length of the development of Monotheism amongst the Jews, and the origin of Christianity: in order to arrive the more rapidly at von Hartmann's own views of the present condition and prospects of religion.

The God of the Semitic race, it appears, at first one with nature, gradually became transcendent; and to supply the immanent divinity thus lost the conception of the Spirit, Sophia, or Logos was introduced. As Logos (preferred for its masculine form to Sophia), it was identified by Christianity with Jesus; and the Son in whom mankind should be saved, thus constituted, was after some hesitation raised to equality with the Father. The difficulty of understanding how so many individuals could be saved in, or by participation in, Him, who Himself was a definite individual person, suggested the doctrine that it was by participation in the Spirit given by Him and the Father. Gradually the Spirit, to avoid materialising it, was personalised, and the Trinity completed. But by thus personalising the Spirit (though the process was never quite carried out), He was so far disqualified for immanence and mediation. The Church therefore began to interpose between the sinner and God the Virgin and Saints; that is, mere persons whose immanence was impossible, vain subterfuges which the Reformation swept away.

The orthodox doctrine concerning God is not that one person is

three persons, but that one impersonal God has three persons or aspects; in other words, the Trinity is a Henotheism with three persons. In addressing each person, the worshipper contemplates the whole Godhead. But since the objective work of redemption belongs to the Son alone, He has such a conspicuous position that we may call Christianity the religion of the Son as Judaism was of the Father. Christianity makes an advance on Judaism by its elevation, first, of the immanent Spirit to equality with the transcendent Father; secondly, of the immanence of God in man to the conception of a divine humanity: thus furnishing at once an active principle and an ideal to the religiously moral life. But the early Christians erred when in their fear of mixing God with Nature they personalised the Spirit and thereby severed God and man. Now at least when such confusion is no longer to be dreaded, to personalise the Spirit is needless; and freed from the limitations of personality it becomes capable of immanence in men, though still by its infinity and absoluteness transcendent. Thus just when Tritheistic Henotheism has become intellectually impossible, the Spirit is ready to supersede both the Father and the Son: the Father, by its identity with Him in respect of substance; the Son, because the Spirit by its immanence takes subjectively the functions of redemption, salvation and reconciliation, and makes an objective historical Saviour superfluous.

The Religion of the Spirit, then, is about to enter upon the scene of consciousness. Whilst former religions laid the burden of the tragedy of the world either upon the Gods, or upon men, or upon the Son of Man, in this the burden falls where in fact it must lie, upon the Universal Spirit, and upon those creatures in whom the Spirit approaches consciousness. Whilst former religions flattered our frailty with hopes of pleasure here or hereafter, that which is to supersede them all will know no such vanity. Whilst in Christianity the principle of religiously-moral life remained on the whole heteronomous, and salvation was by another; in the religion of the Spirit the living principle is truly autonomous, and the power of salvation is immanent in oneself. To this end the Spirit itself has led mankind. The development of religious consciousness is nothing but the process by which the Spirit gradually rises to self-consciousness. The religious object may now be described as Concrete Monism: an impersonal Spirit attaining personality in an infinite kingdom of divinised men. It differs from Theism by the impersonality of the Spirit; from Brahmanic Abstract Monism by the reality of the many persons in whom it attains consciousness. These other religions were co-ordinate approximations to the religion of the Spirit, which now reconciles and displaces them with the really last phase of the development of the religious consciousness.

What then is the religious consciousnesss? The book returns no adequate answer. Total disregard of Psychology is one of its chief defects; to which are greatly due both its general vagueness and particular shortcomings. The bizarre account of the mental qualities of beasts and primitive man has been noticed: a more pervading error

is the assumption that religious changes are the work of understanding and result from the detection of doctrinal contradictions; whereas the chief proximate conditions of such changes are not movements of thought but revolutions of feeling. As long as human feelings in relation to power, liberty, morality are unaltered, intellectual difficulties are prolific of apologetic hypotheses, but produce no reformation. Nay, rather than reform religion mankind will embrace systems of philosophy based upon explicit contradictions, and glory in doing so: though in philosophy, if anywhere, intellect should prevail. Controlled by feeling, many who have ceased to be theists embrace Pantheism to avoid Positivism: so that von Hartmann need not be surprised though the Omniscient Unconscious upon which his own system depends should not secure its immediate rejection.

Another defect which partly explains the insufficience of his Psychology, is the author's superficial information about primitive man and his religions, and merely literary acquaintance with later races and their religions: but the latter need not be dwelt on here, since the Church is defended by many times five hundred champions better than the present reviewer, who will of course demolish von Hartmann if they think it worth while. For poverty of facts and direct evidence he seeks to compensate by ingenuity. The praise of great ingenuity cannot be denied him.[1] His book is a sort of challenge either to accept the theory it sets forth or to produce another equally ingenious. But most of us may fairly decline both alternatives: acceptance, for want of conviction; rivalry, for Protagoras's reasons, the shortness of life and the obscurity of the subject. Even the ingenuity must not be overrated by Englishmen. Whilst rarely attempted amongst us, to construct a philosophy of religion is a common German exercise. Lectures upon it go on every year in every University of the Empire, and treatises abound, supplying innumerable suggestions both of scheme and detail which render the undertaking much easier than our innocent countrymen are likely to suppose. For whether in Universities or elsewhere little more than the rumour of all this reaches us. Occasionally a popular preacher or writer of dangerous tendencies touches upon it, and astonishes his audience with short swallow-flights of rhetoric that dip their wings in German speculation and skim away. But interest is as transitory; and even amongst the educated anything deserving the name of information about the subject hardly exists. This is an example of our well-known inaccessibility to ideas and carelessness about applying them to the serious things of life. To our Philistine minds ideas seem important chiefly if true, and true only when proved. Hearing of endless speculations with little or no evidence we neglect them, and go on treating serious things in a serious way.

CARVETH READ.

[1] Nor can the praise of a good expository style; a little inflated, but clear and flowing: though with none of the genuine literary charm of Schelling and Schopenhauer.

VI.—NOTES AND DISCUSSIONS.

THE PASSAGE FROM STIMULUS TO SENSATION.

Nerves being essentially passages of communication between different parts of the body, and the events which take place in them being only in a limited degree amenable to direct experiment, it is not surprising that much of our knowledge of those events should be indirect, and based on observation of occurrences at the points where the communication finally arrives. Of such terminal points muscles have been by far the most important, owing to their visible and well-defined response to nervous stimulation; but the value of muscular contractions as evidence of nervous processes is much circumscribed by the independent physical properties of muscle itself, especially by the sluggishness which prevents its responding to more than a very limited number of the impulses that may be conveyed to it. But nervous communications pass inwards as well as outwards: is there no way of obtaining information as to the process of passage from the occurrences at the *inner* termini? At first sight the case here seems still worse; for not only we cannot get at these termini to examine them, but the precise situation of many of them is unknown to us; and even if we had them under our eyes, yet, since they are themselves made of nerve-substance, the molecular events which stimulation produces in them would be as much beyond our direct observation as those which take place in the nerve-fibres which conduct the stimulation. There is, however, a phenomenon connected with some of these inner termini, which, like the contractions of muscle, may serve indirectly as an indication of the events in the communicating fibres, namely sensation; that is to say, some quality of the sensation may enable us to draw conclusions as to the objective nervous events which lead up to it. The present Note contains a case of this sort, and may have some interest if only as showing that purely psychological observation may occasionally be necessary for the establishment of purely physiological facts.

The auditory apparatus, like that of the other senses, consists of an external part of which we know a great deal, an inner cerebral part of which we know next to nothing, and a communicating nerve. Now even if we allow a nerve-fibre to be capable of conveying in a second a number of separate impulses equal to the number of vibrations which correspond to high musical tones (and the greatest capacity in this respect ever suggested for it falls considerably below the number of vibrations corresponding to the highest tones)—the orthodox view still would be that the immediate nervous counterpart to the sensation is not a *quantitative* event corresponding in periodicity and frequency with the external stimulus, but some *qualitative* event, some chemical affection of nerve-substance, which, even if it be imagined to have some molecular periodicity of its own, presents therein no correspondence to the stimulus. The nervous affection of

course commences in the fibre conveying the impulse; the question how far *varieties* in the affection corresponding to *varieties* in the corresponding sensation (as of pitch) are represented in the fibre itself, or are confined to the changes in the central organ which the changes in the fibre bring about, we may postpone for a moment. (On the latter hypothesis we should have to suppose each fibre to have its extremity in the internal organ very definitely localised, as otherwise *similar* events passing up the several fibres could not produce *different* events corresponding to the different sensory results; just as a similar electric current passing up different wires, and capable of producing different results according to the distinct sorts of apparatus applied to the further end of the respective wires, could produce no difference of results if led into a general apparatus common to all.) But in any case, each outer terminal element is regarded simply as a *trigger*, which, when jogged, will send some mode of affection up the nerve-fibre, and be followed by a particular sensation when the affection reaches the central organ; the trigger being so constituted that it will be set in action by air-vibrations of a particular frequency, but this particular frequency being connected with it only *quâ* its mechanical office as trigger, and not in any way numerically represented in the upward impulse along the nerve. Each fibre, if it could be isolated and mechanically or otherwise stimulated in the middle of its course, would (it is believed) give rise to its appropriate tone, just as much as when stimulated *vid* the terminal trigger.

Now as long as we look at the apparatus and its action only in their developed form, this may seem all pretty plain; but when we look at the process of development, it is otherwise. The difficulty is this. If we look at the two extremes, if we compare the set of objective stimuli (meaning by a *stimulus* any series of vibrations of one particular frequency) applied to the cochlea, and the set of sensations of tone to which they ultimately give rise, we find between them a most definite resemblance which exists in connexion with no other sense, in the fact that each presents a *perfectly regularly graduated scale*. The stimulus varies in the *frequency* of its vibrations exactly as the tone varies in *height;* the increase of the frequency and the heightening of the tone keep exactly parallel. Now we have just assumed that the vibration-frequency, *as such*, has no direct effect on the particular events in the internal organ which are the objective counterparts of particular tones; a particular frequency acting only by jogging the particular trigger, which is connected by an explosive fibre with the part of that organ whose stimulation corresponds with a particular tone. It seems to follow then that, when the variations took place which we suppose to have taken place in the development and differentiation of the sense of pitch, we have to imagine for each step of development *two independent variations*, one in the trigger, one in the nervous substance and liability to molecular affection of the central organ or the fibre or both; which variations, for all their independence, *present by accident an invariable correspondence*, in that the *stimulus* of the trigger and the *sensation* corresponding to stimulation of the central locality hold

precisely parallel places in their respective quantitative scales, in the scale of vibration-rates as counted and the scale of pitches as heard.[1] A trigger is developed capable of being jogged by air-vibrations of such and such a frequency: a certain bit of nerve-stuff is developed or chemically modified so as to give rise on stimulation to such and such a tone: and though there is no connecting chain of quantitative events between the two, yet it turns out that the vibration-frequency bears to all the other vibration-frequencies which can affect that ear precisely the same quantitative relation as the tone bears to all the other tones which that ear can hear. Time after time two things come simultaneously into being, each presenting a particular quantitative characteristic possessed by none other of its kind; and in each case the two quantitative relations present a miraculous identity.

The identity is of course not really miraculous. Each quantitative event in the way of the variously-timed vibrations of the triggers must have a counterpart, differentiated so as to correspond to it in some *precise and invariable* manner, in the nerve-substance; so that each particular vibration-rate may give rise to one particular chemical change or set of changes and no other. Not only so, but there must be a true *scale* of chemical events, however impossible it may be for us, in our ignorance of molecular processes, to imagine it. I confess that, when I try to make sense of this to myself, I cannot keep out the *quantitative* notion; to me these precise and precisely graduated sets of molecular events insist on presenting themselves as truly *periodic;* and I cannot therefore but regard the whole argument as telling conclusively *against* the assumed orthodox view.[2] But however that may be, we

[1] I have pointed out in the 7th chapter of the *Power of Sound* § 11, how discrimination of tones in respect of pitch differs from discrimination of colours or tastes or smells, in being a discrimination not only of qualitative but of *quantitative* differences, irresistibly felt as differences of *distance*, and capable of the minute measurement which results in a genuine and accurate *scale*. Thus it is only in connexion with the ear that the present difficulty would suggest itself in a perfectly definite form.

[2] Wundt, who holds the doctrine of periodic vibrations corresponding to the stimulus in the auditory fibres, and has attacked what I have called the orthodox view in several ways, has yet necessarily missed the above argument in favour of his view, owing to his denial of special modifications in the sensory centres. He carries his hostility to "specific energies" (*i.e.*, simply chemical differentiations) of nerve-substance to the length of asserting, without a word of justification, that such energies could never have been gradually developed, and so imply the absurdity of a fresh special creation for each of the special senses. He actually maintains that the possession of a terminal apparatus for starting nervous vibrations is the *only* reason why the auditory fibres alone act as a channel of sound: that is, he denies differences of structure and action in the various brain-centres so completely as to hold that affections of the centres for sight or taste would instantly be felt as sound, could the periodic stimulation be got to them. This view that it is solely the periodicity of the stimulation, apart from any peculiarity in the auditory centre, that constitutes the physiological correlate of sound, suggests among other difficulties the following,—that in the case of many non-musical sounds the *stimulus* is (according to Helm-

seem driven to one definite conclusion. We can only avoid the miracle above propounded by allowing no chain of *neutral and undifferentiated* nervous events, no intervention of explosions *lacking* the precise individuality of chemical character which corresponds to one pitch and no other, *between* the terminal vibrating impulse and the chemical events presenting this precise and individual character in the central organ: in other words, in the case of sounds of different pitch we must refer the commencement of the corresponding differences of nervous affection to the *point of connexion* between the trigger and the nerve, between the mechanical and the chemical events, and not to the parts of the central organ apportioned respectively to the different pitches. This would constitute a great difference from what the Young-Helmholtz hypothesis of three primary colour-affections (which is likely to survive Wundt's attack) drives us to imagine in the case of the eye; *viz.*, that the various nervous events corresponding to the delicate varieties of colour-sensation are composite results of several simple currents, and take place therefore only at the junction of these currents in the central organ. Further, if the molecular events corresponding to minute differences of pitch present their full differentiation and variety at the very outset, at the external extremity of the nerve-fibre, it may well be that mechanical or electric stimulation applied in the course of a particular fibre would not be able (as usually supposed) to start the peculiar method of action appropriate to a particular pitch. We might expect it rather to produce an undifferentiated sensation of sound; for it would not (as in the case of the optic nerve it probably would) have the seat of the characteristic action necessary to the more precise sensation wholly *internal* to it.

If I am right in the above argument, the difficulty of finding a causal link for the precise correspondence in the development of the mechanical and the chemical structures and events will be absorbed in the more general one, how precise and invariable chemical events in living tissue *can be produced at all* by stimulation so slow and mechanical as that of air-vibrations; differing as these do so radically from the etherial vibrations of light, and from the direct chemical stimuli which originate tastes and smells. Till we understand in some measure how cause and effect are connected at the point of junction, we are scarcely likely to understand the delicate correspondence of their variations.

EDMUND GURNEY.

holtz at any rate) *not* periodic, any more than it would be if the nerve were mechanically stimulated in the middle of its course; and if Wundt tried to meet this with his theory that by constant response to periodic stimuli the molecules *on their own account* acquire a "disposition" to periodic vibration, which might thus be started even by a non-periodic stimulus, we answer, how could this apply to an infant a few days old, which nevertheless obviously hears noises? Had it only occurred to Wundt that this theory of gradual adjustment and disposition to periodic stimulation in the nerve-molecules of the individual might be reasonably applied to the evolution of the auditory centre through generations of organisms, the production at that centre of a "specific energy" amply sufficient for the purposes of the above argument might surely have suggested itself to him as at least a natural result.

LOCALISATION OF BRAIN-FUNCTIONS.

The question of the definite localisation of brain-functions—which concerns the psychologist directly, but also were it only because the physiologist cannot, or at least does not, treat it without making free use of psychological terms—has remained under constant investigation since it was last reported on in MIND XVIII. Some farther report is now necessary, not that the question has been brought nearer to a determinate solution, but because for the moment the researches of the two foremost investigators—Goltz in Germany and in this country Ferrier—appear to have resulted in a complete deadlock. It is enough to refer to the work of the two physiologists just named, for though Munk and others have obtained experimental results that differ from Ferrier's in detail, they cannot be said to raise any new question of principle.

Goltz, whose previous memoirs have been noticed in MIND (V., VI., XVIII.) as they appeared in *Pflüger's Archiv*, has all along held a position of exceptional strength. He was the first experimenter who kept his subjects (dogs) alive long after operating on them, and could thus distinguish between the passing effects of the operation and the permanent deficiencies of function (*Ausfallserscheinungen*) resulting from the different lesions. Ferrier's observations, set forth in his *Functions of the Brain* (1877), were open to the objection that they represented nothing but passing effects, since his subjects (monkeys) either died or were intentionally killed soon after the operations; and it would have been, on this ground, impossible to maintain them in their original form against the contrary statements of Goltz, had they not appeared to be supported by a steadily increasing store of clinical observations on human beings. Now, however, while Goltz, on the one hand, tells us in a new memoir (the fourth) in *Pflüger's Archiv* (xxvi., 1-49) that his own previous results have been absolutely confirmed by new experiments of a more accurate description,—on the other hand, monkeys treated as Ferrier treated them have been kept alive for periods of seven or eight months from the time of operation. Permanent deficiencies of function have thus been noted on the one side as well as on the other. The rival theorists have also lately engaged in a public discussion of their views, at the meeting of the International Medical Congress held in London last August, and a full report of the discussion appears in the *Transactions* of the Congress (London, Kolckmann) i., 218-43. Besides preparations, diagrams, &c., displayed on either side, Goltz exhibited alive one of his dogs which had lost the greater part of the upper cortex of both hemispheres, while Ferrier produced two living monkeys, one with extensive destruction of the "motor zone" of the left hemisphere, and the other with its "auditory centre" in each hemisphere extirpated. After the different effects contended for had been demonstrated on the living subjects, the dog and the first of the two monkeys were killed, in order that their brains should be subjected to closer examination. This has been carried out by a committee of independent observers,

who have already furnished preliminary reports, also printed in the *Transactions.*

Goltz's new method of experiment, as set forth in his last memoir, enables him to remove particular portions of the cortex with much greater exactness than before. He accordingly divides the accessible upper portion of the two hemispheres (behind the frontal convolutions proper) into four quarters—two anterior and two posterior, and removes them or any selection of them at will (approximately). The general results, so far as the question of localisation is concerned, are thus summed up by himself:—"(1) The hypothesis of circumscribed centres subserving special functions in the cerebral cortex is untenable. (2) There is no section of the cortex exclusively devoted to sight, to hearing, to smell, to taste, or to touch. (3) It is impossible by any limited destruction of the cortex to cause permanent paralysis of any muscle, or to withdraw it from the influence of the will. (4) The vital manifestations from which we infer intelligence, feeling, passions, instinct, do not depend on functionally distinct regions of the cortex. (5) Destructive lesions of anterior regions of the cortex cause deficiencies which differ in some respects from those caused by lesions of the posterior regions; the difference being perhaps explicable from simultaneous lesion of the underlying white fibres leading to the crura." So far as yet made out, the difference amounts only to this—that while removal of the forward regions shows itself in clumsier movements and reduced tactile sensibility, removal of the hinder lobes more distinctly affects sight and the other specialised senses: and this concession, if it may be regarded as a concession, to the localisation-hypothesis is guarded by the suggestion that the ground of the difference is to be sought for not in the cortex itself, but in the underlying white tracts. The general intelligence is also somewhat more affected in destruction of the hinder lobes, but this result in Goltz's view must be ascribed to their larger extent; since it is always upon the *amount* of lesion (both hemispheres being involved) that he has found permanent deficiency of function mainly to depend. The deficiency is manifested in generally lowered intelligence with blunted sensibility; but even when the destruction is carried so far as to reduce the animal to perfect imbecility, there is not one of its senses through which it may not still be stimulated, nor one of its muscles over which it has lost control. So far indeed may the destruction be carried by Goltz's newer method, that in one case, he declares, he found the powers of movement, with some form of every one of the modes of sensation, remaining, though the brain as preserved after death weighed only 13 grammes, against 90 grammes as the normal weight of the brain, similarly treated, in a similar subject!

Ferrier, on the other hand, has found that his own earlier assertions of loss of particular functions in monkeys newly operated on apply equally to subjects that have long recovered from the disturbing effects of operation. The monkey, proved by autopsy to have lost nearly the whole of the motor area in the left hemisphere and no other part of the cortex, remained affected with motor hemiplegia of the right

side seven months after operation, while otherwise appearing in full possession of its normal powers. The other deprived of the strictly limited portion of one particular convolution (superior temporo-sphenoidal) in each hemisphere, which Ferrier from the first had fixed on as the "auditory centre," appeared to have lost all power of hearing and to have lost nothing whatever besides. Other confirmatory cases were adduced at the public discussion and are reported in the *Transactions* referred to above.

What is to be made of a conflict of evidence that seems as if it could hardly be more pronounced? Ferrier can only suggest that the discrepant results of Goltz are explicable from the lower organisation of dogs. Just as frogs can perform many complex and even apparently purposive acts after the removal of the hemispheres altogether, so he thinks that with greatly mutilated hemispheres dogs may still through lower centres remain liable to be affected and able to act in ways not possible for monkeys, much less human beings. Nor is the suggestion without point as against Goltz, who is ready to talk of his mutilated dogs as mere "reflex eating machines" and is not disposed to dogmatise as to the subjective character of that varied sensibility which he maintains is left after destruction of the cortical substance has been carried to the utmost accessible limit. The suggestion, however, by no means suffices to remove the difficulty. A dog is not so different in the conditions of its intelligence from a monkey that a wholly different relation may be supposed to obtain between the higher and lower brain-centres in the one and in the other. The cortical substances can hardly be indispensably necessary for the simplest re-action upon an optical or auditory impression in a monkey and quite superfluous in a dog; and the case is even harder to conceive, for, on Ferrier's view, it is one small fractional area of the cortex that is thus indispensable in monkeys for sight or for hearing. The newer facts adduced by Ferrier do nothing to obviate the objection that has before been urged against him in these pages—that he takes the brain for much too loose an aggregate of parts much too simple and distinct. That at any of the circumscribed spots denominated by him "motor" or "sensory centres," through all the thickness of the cortical substance, just one particular class of motor impulses or of sense-impressions is to be understood as organically provided for—is an assertion that would take one knows not what amount of experiment and clinical observation to prove. Goltz's conception of the intricate constitution and working of the brain, so far as he has yet shadowed it forth, must be said to come much nearer to meeting the requirements which psychology would make of physiology; and, so long as such facts can be produced as Goltz has recorded in his memoirs, it is hard to believe that Ferrier rightly interprets the different facts which he on his side may now be allowed to have established.

It clearly, however, becomes the duty of Goltz, in carrying forward (as he promises in his last memoir) the inquiry into localisation from his own point of view, to meet his opponent upon common ground and show (if he can) that the more developed brain of the monkey is also not the

simple congeries of distinctly circumscribed centres which evidently the dog's is not. Meanwhile, it is needless to dwell upon the circumstance noted by the committee of experts in the two brains submitted to closer examination, that the lesions in neither case have been confined to the cortical substance. Too little is known of the relation in which the white tracts in the hemispheres stand to the cortex to give ground for suggestions that can yet help to reconcile the discrepant results. It should only be mentioned that in both cases the basal ganglia appeared to be unaffected by the lesions from above. The discrepancy therefore—to call it by the mildest name—may be held as really affecting the brain proper and in the brain pre-eminently the grey cortical matter, which all are agreed in regarding as that organic structure whose functions are most immediately related to the processes of subjective mental life.

EDITOR.

HORWICZ ON THE ORGANIC SENSATIONS.

The *Vierteljahrsschrift für wissenschaftliche Philosophie* IV., 3 contains a careful study of the Organic Sensations (Cœnæsthesis) by A. Horwicz. The writer includes under this group of feelings "all those sensations which arise immediately out of the physical life, the proper vital processes, the temporary functions of the physiological apparatus without the co-operation of external impacts". He views these both as individual feelings, and as combining (as they mostly do) in a mass of inseparable feeling known as the "vital sense," &c. According to this double point of view he classifies them as follows. First of all come the Individual organic feelings, which are subdivided into General, or such as are common to all organs and tissues, and Special or such as are peculiar to certain organs. The first of these (the General) are further divisible into two classes, the Normal, which as a rule are not discriminated in consciousness, and the Discriminated. The Normal (General Organic) Sensations are, it is plain, shrouded in obscurity, since they do not stand out in clear distinction from others. At best they are "rudiments of feelings". The Discriminated group on the other hand are open to observation. These fall into External and Internal Sensations. The External consist of the (non-intellectual) feelings connected with the stimulation of the sensory fibres of the skin by pressure, changes of temperature, &c. It is in this sub-group, and more particularly those of pressure (which though arising indirectly from impact are supposed to have their immediate physical cause in certain internal changes), that we can best observe the variations of the discriminated general feelings according to the strength of the stimulus. These like all sensations are found to move within two extremes of a disagreeable too little and a painful too much. Thus the lowest stage of the organic feeling connected with pressure or the impact of some external body is the unpleasant feeling of Tickling. With a stronger impact comes the mixed sensation of Itching. Then follow the distinctly pleasurable

sensations which correspond to the range of stimulus where the discrimination of degrees of pressure is most perfect. Finally we reach the varieties of painful Sensation, such as Burning, Piercing, Stinging and Cutting Sensations, which answer to an excess of stimulation relatively to the condition of the organ. (In the case of temperature and chemical stimuli, the scale is not so well known, and not so complete.) A transition from the External to the Internal Sensations is supplied by the feelings of Tickling, &c., which occasionally arise in the absence of external stimulation. The Internal Sensations proper are those connected with the internal organs, which in spite of obscure details may be roughly arranged in a similar scale to that of the external sensations.

We come now to the second great class, the Special, the selected or "privileged" (bevorzügte) sensations. An organic feeling may be thus singled out and made distinctly conscious for such reasons as (1) the central importance of the organ, or (2) of the effect of its stimulation (that is, the extent of the resonance of the feeling due to nervous connexions), (3) special sensibility, (4) the extensive magnitude of the feeling or the range of its distribution in the organism; also for other reasons. Reason (1) is illustrated by the feelings of respiration (those connected with the action of the heart appear to contradict the principle): reason (2) by those of the organs employed in the preparation of blood: (3) by the sexual feelings: and (4) by the muscular feelings. A careful description of these various sensations follows. The sensations connected with nutrition and digestion are subdivided into three classes (*a*) local sensations of organs of digestion (as mouth-watering), (*b*) general sensations of digestion, those of satisfaction, pressure, nausea, &c., in which local feelings are not separated, and (*c*) general feelings of nutrition, including Hunger, Thirst, Satiety, &c., which, though in their beginning distinctly local sensations, in their more fully developed forms involve much wider regions of the organism.

After this study of the organic feelings as single sensations, the writer proceeds to view them *en masse* as making up the bodily Tone or Disposition (Stimmung). These collective states of feeling are distinguishable into genuine dispositions, or Cœnæsthesis proper, in which the individual sensations are completely lost, and such dispositions as receive special colouring from certain separate sensations, though these do not amount to discriminated sensations. The former are those states of feeling in which we commonly find ourselves; the latter are such states of feeling as arise when some slight local irritation produces a general feeling of uneasiness. It is added that certain classes of separate sensations, as those connected with the state of the sexual organs and of the muscles, serve through their range or that of their resonant effects to colour the whole disposition or tone of feeling.

JAMES SULLY.

DEFINITION OF INTUITION.

Intuition, like most other words of a similar formation, stands for one or other of three things—for a power, an act, a product. Sometimes, indeed, the product has been denominated a "singular concept" (in contradistinction to a *common* concept or *notion*), and sometimes an "idea of the individual"; but all concepts are, properly speaking, general or common—they have reference, that is, to classes or types—and the word Idea (as we shall see by and by) has been put to so many diverse uses that we are unwilling to accept it in any connexion where it can possibly be dispensed with. Better, then, leave the term in its threefold application than thus introduce further ambiguity and looseness: all the more so, as the ambiguity in any case is not very great, and we have the phrase "intuitive knowledge" to designate (where need is) the product, while the verbs *intuite* and *envisage* (neither of them perhaps very euphonious) can be brought into requisition for the act.

The primary signification follows the etymology. Intuition literally means—*seeing through the eye, visual perception:* and, if we draw a distinction between *intueor* in classical usage and its near synonyms *contueor*, *aspicio*, &c., we should say that in *intueor*[1] is implied *intentness* of observation, rather than bare seeing, and the English equivalents are—*view*, *gaze*, *look at*, *grasp*, *take in*. Accordingly, we find that *intueor* does not properly translate, ὁράω, θεάομαι, βλέπω, &c., but rather such Greek words as ἐμβλέπω, ἀτενίζω, &c. Visual perception, in like manner, attaches to *intueor*, the verb, when first adopted into philosophy; and it is prominent in the nouns *intuitus* and *intuitio*.[2] There is this difference, however, that immediate presence of the object is now the central fact, rather than intentness of observation, and the antithesis or contrast is to the visionary and the representative in imagination and in memory. Referring to dreams, Boëthius says (*De Consolatione Philosophiae*, Lib. iii., pr. 1)—"ad veram, inquit, felicitatem, quam tuus quoque somniat animus: sed occupato ad imagines visu, ipsam illam non potes intueri".

If, then, we ask at this stage what Intuition is, we obtain as answer—the apprehension or discerning of a thing actually present to the eye; and it is distinguished, on the one hand, from the revival of that thing in memory or its copy in imagination, and, on the other hand, from the representations of dream-sleep and of the waking fancy.

But, in current philosophy, is there not something more, and some-

[1] The simple verb *tueor*, in the sense of *look at*, is mainly, if not solely, poetical: its prose signification is in the metaphorical meaning of *defend, protect;* hence the adj. *tutus, safe*. On the other hand, *intueor* is scarcely found in the poets at all. It is very rare in Horace; it is not employed by Virgil; except *in tmesi* (we speak under correction), it is unknown to Lucretius.

[2] Both *intuitus* and *intuitio*, as well as the adjective *intuitivus*, are non-classical. The last two are scholastic, and the first remounts at any rate to Boëthius.

thing different, implied? When the problem of the external world is in view, no doubt there is. Intuition is then used to denote an *immediate* perception of the external object seen, and the antithesis now is to the idea interposed between the percipient and the perceived —this latter being no longer absent as in memory, or unreal as in fancy, but actual and present, yet beyond the sphere of consciousness; or, if the non-Ego be regarded as a modification of the Ego, this modification becomes itself the intervening representation—it *suggests* the non-Ego. We have here the contrast denominated by Hamilton presentative and representative; and its characteristics may be seen fully drawn out in *Reid's Works*, Note B. Reference may also be made to an interesting Note on the same subject by Mr. D. G. Thompson, in MIND X.

There is but a step between visual perception and sense-perception in general: and so, intuition is not unfrequently applied to the immediate perception of the external, through whatever sense it comes—whether through the eye, the muscular sense, the locomotive faculty, or the touch. It was thus an appeal to intuition when Dr. Johnson offered his well-known and characteristic refutation of Berkeley; and a similar refutation has been offered repeatedly since Johnson's day.

Thus far external perception. But perception is also internal; and we intuite mental phenomena and mental facts, as well as external objects. In this way, immediate knowledge of present affections of the conscious subject is sometimes (though very abusively) said to be intuitive—such, for instance, as my consciousness at any particular moment that I am hot or cold, hungry or sated, pained or pleased: to which may be added perception of the secondary qualities of matter generally,—in which sense the elder Pliny frequently uses the word *intellectus*.

Again, Leibnitz has distinguished between *intuitive* knowledge and *symbolical* knowledge. The latter is knowledge through the concept; and the concept—being the common, the general, the universal—is neither an object of sense nor picturable in the imagination; it is obtained through comparison of individuals and abstraction, and is fixed in a sign or symbol. The former is concerned with what is immediately presented to sense or what is pictured in the imagination, and its object is always a singular or individual. In this connexion we have further to observe the distinction between the clear and the distinct among concepts. "A concept is *clear*, when the degree of consciousness is such as enables us to distinguish it as a whole from others . . . *distinct*, when the degree of consciousness is such as enables us to discriminate from each other the several characters or constituent parts of which the concept is the sum." This is the complement of the Cartesian doctrine of the criterion of truth; but the distinction itself, partially grasped, may be traced far back in philosophy.

A reference must here be made to Kant. In the Kantian system, every individual perception is an intuition, and the two universal conditions of intuition—the two forms of the sensibility—are space and time. This in German is *Anschauung* and the definition is well

given by Mansel in his *Prolegomena Logica* (p. 9 n.)—"The word *Intuition* is used in the extent of the German *Anschauung*, to include all the products of the perceptive (external or internal) and imaginative faculties; every act of consciousness, in short, of which the immediate object is an *individual*, thing, state, or act of mind, presented under the condition of distinct existence in space or time."

Once more, in mystical philosophies, Intuition takes a high and transcendent flight. It is now the immediate apprehension of the Absolute or Unconditioned; and, as such, is sometimes marked off by a qualifying epithet—as in the "Rational" or "Intellectual" Intuition of Jacobi and Schelling. This is, of course, an entirely different affair from the "Faith" of Christians. The Christian πίστις is not pantheistic, even when it assumes the form (in the writer to the Hebrews) —τὸν γὰρ ἀόρατον ὡς ὁρῶν ἐκαρτέρησε.

Now, looking back upon all these uses, what is it (let us ask) that they have in common? Omitting the last of them (which is peculiar), they all imply an act of attention, they all deal with the singular or individual, they all regard the knowledge derivable from intuition to be direct, immediate, or presentative, and so, beyond the reach of doubt or question.

But the uses are not yet exhausted. On the contrary, there is an application of the word to principles, and a special signification is given to it in Ethics.

In Ethics, intuition means the direct perception of the qualities or properties of actions—such as, their rightness or wrongness, their virtue or vice, their merit or demerit, their moral turpitude or moral beauty. This is, obviously, different both from the immediate apprehension of an external object and from the immediate perception of a mental state or fact. It is different also from intuition applied to principles or judgments. As *thus* applied, the word has reference to certain self-evident propositions (for a proposition and a judgment are only different aspects of the same thing, and there is no real distinction between a proposition and a principle—except in point of generality or width), and these propositions are found in mathematics, in metaphysics and in ethics alike—such as the axioms of geometry, the principle of causality, the maxims[1] of the conscience. Intuition is now more especially identified with Common Sense, otherwise denominated Reason; and the principles thus vouched for have been termed indifferently (though not without protest from some quarters)—first, ultimate, primary; innate, *a priori*, instinctive. Reason here, however, must not be confounded with the intellectual operation of that name, but must be taken as the equivalent of the Greek νοῦς and Kantian *Vernunft*, also of St. Augustine's *Ratio*, which is thus defined —"quidam mentis aspectus, quo, per seipsam non per corpus, verum intuetur". Indeed, in his *Inquiry*, Reid imagines Common Sense and Reason to be at feud, and speaks of them as needing to be "recon-

[1] Using the word maxim, of course, in the English acceptation, and not in the strict Kantian sense as opposed to law.

ciled," and in one place he emphatically opposes the two, and, with questionable taste (apart from the questionable philosophy), affirms—"Methinks, therefore, it were better to make a virtue of necessity; and, since we cannot get rid of the vulgar notion and belief of an external world, to reconcile our reason to it as well as we can; for if Reason should stomach and fret ever so much at this yoke, she cannot throw it off; if she will not be the servant of Common Sense, she must be her slave" (*Works*, p. 127 b).

As thus regarded, an intuitive principle, or (to express it fully) a principle the truth of which is intuitively apprehended, is one that is self-evident or unsusceptible of proof, and, therefore, irresistible or absolutely convincing: in other words, it commands assent,—we acquiesce in the truth of it instantly, instinctively, without the slightest doubt or hesitation. Brown defines it (*Lectures*, xiii.)—"a primary proposition, which we admit from the evidence contained in itself, or, to speak more accurately, which we believe from the mere impossibility of disbelieving it": and an "immediate" or "intuitive belief" he regards as a "direct belief," in opposition to, and in contradistinction from, "the indirect belief which attends the result of reasoning". Of course, Brown's language is not very philosophical or precise here, and special exception may be taken to the phrase "intuitive belief,"[1] for intuition (we shall be told) is immediate, and belief is mediate, so that the phrase is really a contradiction in terms; but the meaning is perfectly intelligible, if we take the phrase as elliptical (which in truth it is), and then intuitive belief means—belief that is the necessary and inevitable result of an intuition.

What then, as applicable to objects, qualities, and principles, is Intuition? In the case of objects, there is always a singular or individual (mental conscious state or outward existence), and it is immediately perceived or apprehended; in the case of qualities (ethical), there is not a singular or individual, but the perception is immediate or direct; the individual, in like manner, is wanting in the case of principles, but there is still immediacy of apprehension or perception: in all cases alike, there is, or is maintained to be, subsequent or concurrent assent, conviction, or belief. The points of community are sometimes expressed in the form of criteria or tests, and the tests commonly adduced are three. Thus (*cf.* Brown, *ut supra*):—an in-

[1] This form of expression was very common with a certain class of writers in the days of Brown, and much earlier in the days of Reid, &c. Thus, to take an instance almost at random, Lord Kames, in his *Elements of Criticism*, speaks of an "intuitive" or "innate conviction" of the veracity of the senses, &c. Hume's phrase (see Section xii. of the *Inquiry concerning Human Understanding*) is—"a universal and primary opinion," resulting from "a natural instinct or prepossession"; but, whereas with Kames the natural conviction is trustworthy and conclusive, with Hume it needs to be corrected, and is not unfrequently "soon destroyed by the slightest philosophy". Reid speaks of "instinctive beliefs," and his phraseology is defended by Hamilton, though Hamilton himself prefers the wording—"primary beliefs".

tuition is *universal*, *immediate*, and *irresistible*. Let us examine these tests, and try if, possible, to ascertain their validity.

Universal, strictly speaking, means—*not admitting of exception*. A generic mark, for instance, is said to be universal, because it applies to every one of the species belonging to the genus; and it is in this sense that Hamilton would seem to demand universality, when he lays it down as a criterion of Common Sense (*Reid's Works*, p. 754 b). "When a belief," he says, "is necessary it is, *eo ipso*, universal; and that a belief is universal, is a certain index that it must be necessary. To prove the necessity, the universality must, however, be absolute; for a relative universality indicates no more than custom and education, howbeit the subjects themselves may deem that they follow only the dictates of nature." But universality of this kind is, obviously, out of the question: it does not exist, and it could not be ascertained with absolute strictness, even supposing it did exist. The most that we can hope for, is "*general* consent"; and we all know that the worthlessness or worth of general consent depends very much upon the kind or character of the excluded dissentients: truth often lies with the minority; Carlyle says it *begins* there. General consent is at best only of *supplementary* value, it has not independent force; it is useful for *confirmation*, but cannot, standing by itself, *establish*. Moreover, the test needs to be applied *polemically*. Velleius so applied it in the *De Natura Deorum* (i. 17), for the purpose of proving the existence, the felicity, and the immortality of the gods: "de quo," he says, "omnium natura consentit, id verum esse necesse est. Esse igitur deos confitendum est . . . hanc igitur habemus, ut deos beatos et immortales putemus." But this very fact that the criterion needs to be wielded in a polemical fashion, is itself sufficient testimony that it is not absolutely convincing or weighty to the extent desired.

Much the same may be said of the third criterion—irresistibility. This is the counterpart of self-evidence; or rather, it is the effect, of which self-evidence is the assumed cause. But the cause here is simply inferred, it is known only in its result; and, as more than one cause might produce this same result, self-evidence as creative of conviction is not the power it might at first sight appear to be. As is well known, many beliefs are irresistible owing to "natural prejudice," others are due to education, others spring from habit, others still from tradition or deference to authority; and it should never be forgotten that cases of so-called intuitions—long-cherished, accepted for ages as such—have been proved to be "illusions". Moreover, irresistibility attaches to inferences as much as to intuitions, and we are as certain of the conclusion drawn from premisses rightly constructed as we are of the truth of any principle or proposition whatever.

The only test that is really of paramount importance, and that is applicable alike to principles, qualities, and objects, is the second of the above three, *viz.*, immediacy; and, as immediacy is of two kinds, the test itself is of two degrees or admits of a twofold application. Immediacy means either (1) directness or independence—independence,

i.e., of an intervening medium or a *tertium quid*; in which case it is opposed to what is mediate or indirect: or (2) it has reference to *time*; in which case it is the same thing as immediateness, instantaneousness, rapidity—including in it also facility or ease.

In the first of these applications, Intuition is commonly contrasted with Thought. Now what is the meaning of this famous antithesis? Thought is an ambiguous term. In its widest acceptation (omitting the Cartesian sense, which identifies it with Consciousness in general), it includes Perception, Conception, Memory, Imagination, Reasoning; in other words, is identical with Intellect, and covers one whole division of Mind (Will and Feeling being the other two). In its narrower sense, it comprehends simply Conception, Judgment and Reasoning. It is in this narrower sense that it must be here understood. Perception, Memory and Imagination are all alike regarded as coming under Intuition; for, although the image in imagination and in memory is representative, nevertheless, *as an image*, it is directly present to Consciousness and we immediately apprehend it; whereas the knowledge that we obtain through Reasoning[1] (Inference, Deduction, Demonstration, Argumentation) and through Conception is mediate, relative and dependent. We reach the conclusion in a syllogism, for example, not directly, but through the middle term; and the idea called up in the mind by a general name does not bring us face to face with the singular or individual simply, but with this considered as a type, one of a class, merely an example.

Intuition, then, is immediate; Thought is mediate. Can we thence infer anything as to the relative authority or superiority of the two? Can we say that the one, being immediate, is, while the other, being mediate, is not, to be implicitly relied on? Many have affirmed this; but not well. If one is, then both alike are "founded on an essential principle of our constitution," and both alike need to be checked and guarded. Moreover, as we have seen, Intuition implies attention; and, as attention varies in all degrees, intuition varies also: even Boëthius could distinguish between "intueri" and "perspicaciter intueri". Further still, intuition, standing alone, gives us only "an obscure and indistinct consciousness"; for a consciousness "clear and distinct," Reflection is required.

The other great antithesis is between Intuition and Experience. This is partly an opposition of the two as sources of knowledge, but partly also it has reference to the second meaning of immediacy above explained. Intuition now is assimilated to Instinct, and is indeed not unfrequently employed as its synonym. There is also in it something of the flash of inspiration; and it is further allied to impulse—only, we must exclude the idea of fitfulness. Experience, on the other hand, is conceived as "the daughter of time." It is the laborious process of learning and tuition; demanding time, repetition, testing, and whose results (in the form of acquisitions) have often to be corrected, if not altogether unlearned.

[1] For the distinction between Intuitive and Demonstrative knowledge, see Locke, *Essay, &c.*, Bk. iv. ch. 2., 17.

Is Intuition then, on this account, to be considered absolutely supreme; and are its dictates above and beyond dispute? It is not granted. The instantaneousness or rapidity by which intuition is characterised, is not necessarily a mark of infallible authority; for facility and instantaneousness characterise formed habits; and these adjuncts of a formed habit, unless they be on the side of virtue, are not considered a recommendation. Nay, instincts themselves are not necessarily unerring; and truth, in any sphere, is valid only when duly verified and tested. Neither Experience nor Intuition can monopolise infallibility: and so, between the two, in this respect, there is no just antithesis. WILLIAM L. DAVIDSON.

VII.—NEW BOOKS.

[*These Notes do not exclude, when they are not intentionally preliminary to, Critical Notices later on.*]

James Mill. A Biography. By ALEXANDER BAIN, LL.D., Emeritus Professor of Logic in the University of Aberdeen. London: Longmans, 1882. Pp. xxii, 466.

John Stuart Mill. A Criticism: with Personal Recollections. By the Same. Pp. xiii, 201.

The biographical sketches of the Mills which appeared in MIND have been expanded by the author into these two volumes. Though they are so differently cast as to be fairly called the one a Biography and the other a Criticism, the Biography includes considerable notices of James Mill's varied writings, and the Criticism throws light on many passages in John Mill's life. The author's intimate relations with John Mill lend a special interest to the judgments he seeks to record on the character and achievements of his friend. He has been able to rescue many facts of James Mill's life when oblivion was just about to cover them. A very characteristic portrait of James Mill is placed at the beginning of the Biography.

The Development from Kant to Hegel with Chapters on the Philosophy of Religion. By ANDREW SETH, M.A., Assistant to the Professor of Logic and Metaphysics in the University of Edinburgh, and late Hibbert Travelling Scholar. London: Williams & Norgate, 1882. Pp. 170.

"After a short statement of the shape in which Kant left the question of the relation of knowledge to reality, the author proceeds to show how this metaphysical position was successively modified by Fichte, Schelling, and Hegel. Considerable space is devoted to Fichte's exposition of the principles of 'genuine criticism,' inasmuch as these form the common ground of the post-Kantian Idealism. This wider sense of the term Criticism, though beyond Kant's own horizon, is, in the author's view, the permanent result of the revolution which Kant effected in philosophic thinking. It abolishes the transcendental entities which all previous

philosophy had postulated as the causes of phenomenal existence and knowledge. There is no separation at this standpoint between the phenomenal and the noumenal, and the task of philosophy becomes therefore the statement of the fundamental rational conditions of the known world. The constructions of Fichte and Schelling are defective, in proportion as they fail to maintain this position of immanence or complete relativity. The superior consistency with which it is realised and applied by Hegel constitutes the most valuable lesson of his system.

The Second Part of the volume gives a full account of Kant's *Religion innerhalb der Grenzen der blossen Vernunft*, and a sketch of Hegel's Philosophy of Religion. The intimate connexion of Kant's works with his ethics is pointed out, and his main positions are criticised."

Essays and Dialogues of Leopardi. Translated by CHARLES EDWARDES. With Biographical Sketch. ("English and Foreign Philosophical Library.") London: Trübner, 1882. Pp. xliii, 216.

The enterprising publishers of the "English and Foreign Philosophical Library" not only now add to their previous announcement of a forthcoming translation of Hartmann's *Philosophie des Unbewussten* the promise of a translation of Schopenhauer's *Welt als Wille u. Vorstellung*, but give an interesting specimen of another phase of modern pessimistic thought in the present translation from Leopardi. The translator, besides producing a thoroughly readable version of pieces that must have given trouble, presents a sketch of Leopardi's life which throws no little light on the character of his thought, much as Leopardi himself protested against the notion that its pessimistic cast is in any way referable to his personal misfortunes and sufferings. The grim humour of the pieces will draw the reader on. This is how the translator sums up the philosophy embodied in them:—

"The universe is an enigma, totally insoluble. The sufferings of mankind exceed all good that men experience, estimating the latter in compensation for the former. Progress, or, as we call it, civilisation, instead of lightening man's sufferings, increases them; since it enlarges his capacity for suffering without proportionately augmenting his means of enjoyment."

Primer of Logical Analysis: For the Use of Composition Students. By JOSIAH ROYCE, Ph.D. (Balt.), Instructor in the English Language in the University of California. San Francisco: Bancroft, 1881. Pp. 77.

The interest of this little work lies not so much in what it accomplishes as in its aim. It is an attempt to present as much of Logic as may enable composition-students, without philosophical training, to use the forms of language for varied expression with consistency and precision. For this Logic is, of course, taken only as it is concerned with language—and so related to the sister-disciplines of Grammar and Rhetoric—not as it is a department of Philosophy. As effective composition depends so much on the power of saying the same thing over and over again in a variety of forms, or bringing out the varied implications of a first statement, it is plain that students of literary expression need a certain modicum of logical knowledge as much as of

grammar. It has always, indeed, seemed to us that an intelligent teacher might, in the course of grammatical lessons, communicate even to very young pupils a knowledge of those facts of logical doctrine that are of most practical value because most indispensable to any speaking creature who would be understood. Dr. Royce has not been content to utilise only the traditional scheme of logical forms for this purpose but has sought also to turn to the practical account of his composition-students the reformed schemes of the new Symbolic Logic. It may be doubted whether he has done quite wisely in leading students into the newer field before giving them the practical benefit of all that was to be gleaned upon the old. For example, a good deal more might have been made of the common doctrine of Definition. On the other hand, it must be allowed that he has managed in short compass to give a very clear presentation of the modes of logical statement adopted by some of the modern reformers; and even philosophical students of Logic will find many instructive hints strewed through these pages. The *Primer* has the appearance of a first sketch, which, it may be hoped, the author will both extend and fill in.

Metaphysics: A Study in First Principles. By BORDEN P. BOWNE, Professor of Philosophy in Boston University, and Author of *Studies in Theism.* London: Sampson Low, 1882. Pp. xiii., 534.

To judge by the very vigorously written Introduction, this work (just come to hand) ought to receive careful examination. It is a systematic treatise on Metaphysics as concerned with the true nature of reality and distinguishable, in the author's view, from Theory of Knowledge, which with it makes up Philosophy. Dedicating his work to the memory of Lotze, the author gives this account of its "pedigree":—

"Leibnitz furnishes the starting-point, Herbart supplies the method, and the conclusions reached are essentially those of Lotze. I have reached them, for the most part, by strictly independent reflection; but so far as their character is concerned, there would be no great misrepresentation in calling them Lotzian."

As to the manner of treatment:—

"I have divided the work into three parts whose titles are strongly suggestive of the ancient scholastic treatises on metaphysics. But this resemblance does not go beyond the titles; and these have been used as indicating better than any others the natural divisions of the subject. Ontology, or existence in general; cosmology, or cosmical existence and processes; and psychology, or psychical existence and processes, are the divisions which reflection upon experience immediately suggests. Of course, it is not expected to reach a knowledge of details by the way of speculation, but only to reach an outline-conception of reality which shall be valid for all details, and within which all specific study must be carried on."

La Parole intérieure. Essai de Psychologie descriptive. Par VICTOR EGGER, Maître de Conférences à la Faculté des Lettres de Bordeaux. ("Bibliothèque de Philosophie contemporaine.") Paris: Germer Baillière, 1881. Pp. 326.

An investigation of the phenomenon of internal speech, which the

author regards as one of the prime facts of consciousness, associated as he finds it with almost every event of the subjective life. While its importance was appreciated by Bossuet, Bonald and Cardaillac, it has not, he thinks, received sufficient attention from psychologists of the present day. The author maintains (in agreement, as he has later discovered, with Dr. Bastian against Prof. Bain) that the "internal word" is a purely auditory image. Its various forms and functions, in exceptional cases of "inspiration" as well as in relation to the normal processes of thinking, are described at length.

Das Leben der Seele, in Monographieen über seine Erscheinungen u. Gesetze. Von Prof. Dr. M. Lazarus. Zweite, erweiterte u. vermehrte Auflage. Dritter Band. Berlin: Dümmler, 1882. Pp. 444.

The present volume, completing the re-issue (begun in 1876) of a work which made its mark in psychological literature from its first appearance in 1856-7, includes four monographs—"Tact," "Blending and Co-operation of the Arts," "Friendship," "On the Origin of Morals". Of these the third has not before been printed, and the last not before in this connexion. The whole work, in its revised and now greatly extended form, will receive in a future Number the more detailed notice which its importance deserves.

Die Seele des Kindes. Beobachtungen über die geistige Entwickelung des Menschen in den ersten Lebensjahren. Von W. Preyer, ord. Prof. der Physiologie an der Universität zu Jena, &c. Leipzig: Grieben, 1882. Pp. xii, 424.

This elaborate monograph on the earliest mental development of children will be critically reviewed later on. It is the fulfilment of part of a general design of the author's to make a full physiological investigation of child-life both before and after birth. Besides collecting all available materials from other sources, he has conducted in the case of his own infant son, from birth almost daily for three years, a more systematic observation than any one has previously attempted with a child. The exposition is in three parts, following out with minute detail the development of (1) the senses, (2) the will, (3) the intellect. Among the appendices is one which records (with critical remarks) all the best-known cases of couching congenitally blind subjects, beginning with Cheselden's.

Grundzüge der Ethik u. Rechtsphilosophie. Von Dr. Wilhelm Schuppe, ord. Prof. der Philosophie an der Universität Greifswald. Breslau: Koebner, 1881. Pp. x, 400.

"In this exposition Ethics and Philosophy of Law form one whole. Ethics needs Philosophy of Law as its complement, being liable to be utterly misunderstood unless its principle is so carried out to the final consequences. Philosophy of Law, on the other hand, needs Ethics for its foundation, without which its conceptions are all in the air, and its requirements indemonstrable."

Vorlesungen über Æsthetik. Von KARL CHRISTIAN FRIEDRICH KRAUSE, aus dem handschriftlichen Nachlasse des Verfassers herausgegeben von Dr. Paul Hohlfeld und Dr. Aug. Wünsche. Leipzig: Schulze, 1882. Pp. xvi., 392.

This is a fuller exposition of Krause's system of Æsthetic. Up to the present our knowledge of this system has been obtained from the *Grundriss der Æsthetik* which was published by J. Leutbecher after Krause's death. This work consists of the condensed statements or 'Dictate' which Krause prepared for his lectures on the subject. The present volume contains the complete lectures which he carefully wrote out evidently with the view of publication. In addition to this new material the editors inform us that he left two stout fasciculi of preliminary studies for his lectures. What these contain over and above the substance of the lectures themselves is to be published later on. Krause is in many ways a remarkable figure in the history of modern German thought, and we need not wonder at the persevering efforts which, as the editors tell us, have been made by some of his admirers to acquaint the public more fully with his speculations. His writings show that he combined a taste for abstract mathematical formulas with an enthusiastic feeling for philosophy, and more particularly ethical and æsthetical subjects. He was born in 1781. He studied in widely different fields at Jena, and seems to have lectured there on Philosophy. We afterwards hear of him at Berlin and Dresden engaged in various kinds of activity. His residence in Dresden helped to develop that romantic passion for art which was something very like a religion in his life and which inspired the chief part of his philosophical work. In 1823 he settled in Göttingen where he began to lecture on the philosophy of art as a Privatdocent. He did not rise to the grade of professor, owing, as the editors of the present volume tell us, to the palpable unfairness of the authorities. Heine probably had Krause in his eye when he wrote in the *Reisebilder*: "In Göttingen ideas are secretly smuggled in by Privatdocents". The present volume gives us a fairly complete survey of the field of æsthetic. The most original part of Krause's system is his conception of Beauty. His whole system of thought is pervaded by the idea of organic unity. He is ever striving after the totality of things. The last and absolute unity, God, comprehends all special organic unities, more particularly the identical spheres of the true, the good, and the beautiful. Each of these as fundamental essences (Grundwesenheiten) is at once unity, self-sufficiency (Selbstständigkeit) and totality. Each of these determinations is worked out in the elucidation of the idea of beauty. His way of dealing with these metaphysical conceptions is peculiar, though it is easy to recognise the influence of Schelling on his mode of envisaging the subject. He has a dangerous facility in inventing new terms, many of which are obviously tautological (*e.g.*, Vereinbund, Ganzbund), and a certain haziness is thrown over the exposition by the employment of so peculiar a terminology. In spite of these drawbacks, however, the volume is very interesting reading. Krause had a clear insight into the various aspects of beauty in nature

and art, and he manages with considerable ingenuity to work out his fundamental metaphysical conception into the region of concrete detail. If we add to this that he has a poetic enthusiasm for his subject which often lends a certain charm to his language, and that he saw more deeply than any of his predecessors, Schiller not excepted, into the significance of the æsthetic faculty and of art in the individual life and in the history of culture, we have probably said enough to recommend these lectures to the few who care for the subject.

[J. S.]

Die Gewöhnung und ihre Wichtigkeit für die Erziehung. Eine psychologisch-pädagogische Untersuchung von Dr. PAUL RADESTOCK. Berlin: Oehmigke, 1882. Pp. xiv., 107.

In this Essay the author, who is already favourably known through his volume *Schlaf u. Traum* (reviewed in MIND XVI), seeks to give scientific precision to the idea of habit and the process of its formation. This is exactly the kind of work which the teacher requires to have done for him, and Dr. Radestock has the teacher in view, and gives a thoroughly practical turn to his discussion. The formation of habits, so well expressed by the German 'Gewöhnung,' is seen to be the chief business of education. Its nature is elucidated by help of the newest ideas in physiological psychology. Habit depends on three principles: *(a)* the after effects of psychical functions, or the survival of a 'functional disposition' after the cessation of the action; *(b)* the principle of repeated exercise, namely that the nerve-structure becomes determined to a definite mode of function the more frequently the exercise of this particular function is carried out; and (*c*) the principle of association, or the connexion of functions performed simultaneously or in close succession. Habit is defined as the disposition or aptitude (Anlage) of a physico-psychical organism by which it is enabled, on given occasions (auf gegebene Veranlassungen), immediately to perform relatively equal functions. And the process of forming habits, or of habituating, is defined as the cultivation (Ausbildung) of this aptitude through the repetition of relatively equal impressions and of the reactions which follow the same. The author then proceeds to illustrate the most important effects of the principle, namely the economising of force; the increase of energy in the bodily organs, and in the several psychical functions; and the influence of custom on the collective life of individuals and nations. Dr. Radestock afterwards goes on to consider a number of habits of special importance for Education, such as cleanliness, order, and punctuality in childhood, and industry in the later school period of life. Some good remarks follow on the opposite side of the process of habituation, namely the weaning of the mind from habits which are bad or no longer necessary (Entwöhnung), and on excessive habituation or spoiling through custom and use (Verwöhnung). It is clearly shown that the principle of habit has its limits in education, and that in each of the three departments of mind it may if unrestrained lead to a narrow rigidity which

is unfavourable to further growth. But the author might perhaps with advantage have tried to introduce scientific precision here, also, by defining more exactly the relation of the principle of habit to that of expansion and growth. Nearly two thirds of the volume consist of notes, in which there are valuable references to various psychological and pædagogic works. [J. S.]

Istoria Angliiskoy Etikoy. Tom I. "Angliiskïi Moralisti XVII. Veka." A. Smirnova. (*History of English Ethics.* Vol. I. "The English Moralists of the 17th Century." By A. Smirnoff.) Kasan, 1880.

We may deplore, or take pride in, the fact that we have left the composition of a history of English Philosophy almost entirely to strangers, and that it is chiefly owing to the labours of a Fischer, a Rémusat, or a Guyau that such works exist in a critical and scientific form. The book now before us is another tribute from abroad in acknowledgment of our services in the field of philosophy. Professor Smirnoff, of Kasan University, has endeavoured, as he informs us, to supply a want. He says, that an impartial history of English moral philosophy has not been written, owing chiefly to Kant's condemnation of utilitarianism and the antagonistic attitude of the German schools, which have given rise to prejudices and misconceptions.

The author defines the science of ethics as the science of conduct and practical morality, and as such totally separate from metaphysics and religious speculations. He assigns to ethics the task of discriminating between right and wrong, taking it as an axiom that mankind as a body are desirous of acting morally and behaving wisely. Based on these broad principles, he prophesies a long future for this science, which will progress in the same ratio as the other great practical sciences.

Speaking of the state of moral philosophy up to the commencement of the 17th century, the author says:—

"It was deficient in learning, and did not satisfy the intellectual, moral, and socio-political wants of the time. The insufficiency of the scholastic system of ethics, at the period of the Renaissance, was reflected on the one hand by a revival of classical philosophies, and on the other by the protest of the Reformation. The influence of these two phenomena on the history of European culture was immense. It may be summed up in general terms as follows. The effect produced by the revival of classicism was felt chiefly in an intellectual sphere, and resulted in liberty of conscience, the right of individual judgment in matters of faith, and an intensification of the responsibility of the individual before God."

The author deplores the extreme realism of Bacon and his neutral attitude towards religion, but he admits that the circumstances of the period were such as to make it extremely difficult for any single man to overcome the tendency of the age. He believes that Bacon's extreme utilitarianism has done more for the development of moral philosophy than Descartes's advanced speculations, and he adds:—

"An impartial study of the history of the moral sciences, independently of any preconceived views, will bring us to the conclusion, that their

progress has been accomplished mainly in accordance with Bacon's system, namely by those methods of experimental investigation to which natural science owes its discoveries."

Hobbes's school he deprecates as being of a retrograde and reactionary character. Considerable space has been also devoted to a study of Cumberland, whom some have been inclined to regard as the founder of the modern school of scientific ethics; this, however, the author considers an exaggeration.

Professor Smirnoff may be congratulated on having so carefully and successfully studied his subject. We look forward with interest towards the succeeding volumes, which will bring his history down to the present time.

E. A. Brayley Hodgetts.

The Science of Ethics: By Leslie Stephen. London: Smith, Elder. 1882. About 500 pp.

"The author of this *forthcoming* book was formerly an orthodox utilitarian of the school of Bentham and J. S. Mill. He has come to think, like other people, that modern theories of evolution necessitate a considerable modification of the doctrine expounded by those thinkers. He has accordingly tried to work out a statement of the fundamental ethical principles as they appear to an evolutionist. He holds further, and has tried to show in practice that the science of ethics may and should be treated without reference to certain metaphysical inquiries with which it has been frequently associated. The book covers in part the ground already occupied by Mr. Herbert Spencer's *Data of Ethics;* but it is the result of an independent investigation and treats the problem from a different point of view."

The Philosophical System of Antonio Rosmini-Serbati. With a Sketch of the Author's Life, Bibliography, Introduction and Notes. By Thomas Davidson. London: Kegan Paul, 1882. Pp. lxxx, 396.

"The purpose of this *forthcoming* work is to introduce to English readers the works of the founder of modern Italian philosophy, in so far as this has any distinctive characteristics. The works, as well as the movement initiated by them—a movement which made possible such men as Manzoni, Gustavo Cavour, Tommaséo, Gioberti, Mamiani, Bonghi, Stoppani, Calza, Ferri, &c.—are almost unknown outside of Italy. Nevertheless, this movement seems to deserve attention, as marking an epoch in the history of thought. Rosmini, by bringing ancient and modern philosophy to bear upon each other, was able to correct the primary assumptions of both, and thus to find a way out of dogmatism and scepticism, materialism and idealism. His chief merits lie in the direction of Ideology, a branch of science which, though presupposed in Logic, may be said to have been discovered by him. In accounting for the origin of concepts and ideas, as distinct from sensations, he showed the errors of Kantianism and the absurdities of Hegelianism, as well as the shortcomings of other great systems. To the *Sistema Filosofico*, which forms the basis of the present work, the expositor has added an introduction, notes and parallel passages from Rosmini's larger works, thus supplementing the general outline by the details of the more important parts. Though Rosmini's philosophy was intended as a scaffolding for a theory of revealed religion, it is none

the less true on that account, inasmuch as it does not set out with any theological assumptions, but bases itself on simple observation, which is shown to be a valid source of knowledge. In like manner, though owing very much to Scholasticism, it is in no way influenced by authority. It may be said to be a summing up of what philosophy has done thus far, and a basis for future progress."

Animal Intelligence. By GEORGE J. ROMANES, M.A., F.R.S., &c. ("International Scientific Series.") London: Kegan Paul, 1882.

"The author of this *forthcoming* work has been engaged for several years past in a systematic inquiry concerning Mental Evolution, or the probable history and the causes of the development of Mind as elucidated by the theory of descent. To obtain a trustworthy basis of fact for his generalisations, he has begun by inquiring into the phenomena of mind as at present observably existing in the animal kingdom, and to this subject the present work is exclusively devoted. It passes in review the whole animal kingdom, with the purpose of determining the upper limits of intelligence distinctive of each group, and the facts on which such determination rests have been carefully sifted from large masses of material collected from every available quarter."

VIII.—MISCELLANEOUS.

M. Th. Ribot has published a second edition, entirely re-cast, of his *L'Hérédité* under the new title of *L'Hérédité psychologique* (Germer Baillière, pp. 417). A notice of what is practically a new work is in type, but is unavoidably crowded out of the present Number.

Attention has been widely drawn to the many references to J. S. Mill in the lately published *Journals and Letters of Caroline Fox* (Smith, Elder, 1882). The first edition gave at full length the remarkable letter written by Mill to Miss Fox's brother, shortly after he had returned from Falmouth where his favourite brother Henry had just died, in April, 1840. This is the letter that had been mentioned by Prof. Bain in MIND XV., 394, in the following terms:—"A letter of warm acknowledgment to Mr. Barclay Fox, of Falmouth, for the attention bestowed on Henry by his family, is for Mill unusually effusive and teems with characteristic traits. One not a Christian addressing a Christian family upon death and wakening up the chords of our common humanity is a spectacle worth observing." The letter is otherwise remarkable for the way that Mill unbosoms to his correspondent upon the results of his whole literary activity as reviewer and editor, before he broke upon the world as author of the *Logic*. He continues to figure prominently in Miss Fox's journals for some years after, and there is repeated mention of letters received by her brother from him till the *Logic* appeared in 1843. The letters themselves, to the number of fourteen, have been found since the first edition of the *Journals, &c.* was published, and they are now added as an appendix to a second edition. In all of them (as otherwise in Miss Fox's notes) Mill appears with the genial and sympathetic character which his friends knew, if the world did not guess. His occupation with the *Logic* is the most frequently recurring topic, but

there are also other points of philosophic interest: *e.g.*, his estimate of Thomas Brown (p. 314), and (p. 331) a curiously pronounced assertion of Dualism (after Plato). He speaks of the chapter on Liberty and Necessity in the sixth book of the *Logic* as being in his own judgment "the best chapter in the two volumes" (p. 340).

Miss Elizabeth Hamilton, the only daughter of Sir William Hamilton, died on the 2nd of March. The readers of MIND have had proof of the philosophical ability she inherited, in the Note on "Mr. Lewes's Doctrine of Sensibility," which appeared in No. XIV., pp. 256-61. She was also the author of the article on her father in the new edition of the *Encyclopædia Britannica*. Lately she has devoted herself, with only too much ardour, to the task of translating Lotze's *Mikrokosmus*. We believe she had made considerable way with the translation, and it is to be hoped that some competent hand may be found ready to complete the work. Whatever be the value of Lotze's later *System der Philosophie*, the translation of which is promised from Oxford, it is by the *Mikrokosmus* that his name is most likely to live.

THE JOURNAL OF SPECULATIVE PHILOSOPHY.—Vol. XV. No. 3. J. W. Mears—The Kant Centennial. W. T. Harris—Kant and Hegel in the History of Philosophy. G. S. Morris—Kant's Transcendental Deduction of Categories. J. W. Howe—The Results of the Kantian Philosophy. Notes and Discussions. Book Notices (J. Sully, *Illusions*, &c.).

REVUE PHILOSOPHIQUE.—VIIme Année, No. 1. Ch. Lévêque—L'esthétique musicale en France: i. Psychologie de la musique sociale. Ch. Secrétan—Le principe de la morale (i.). D. Nolen—Le monisme en Allemagne (i.). Analyses et Comptes-rendus. Notices bibliographiques (T. Fowler, *Bacon*, G. S. Bower, *Hartley and James Mill*, &c.). Rev. des Périod. Correspondance (L. Büchner, Schmitz-Dumont, P. Tannery). No. 2. P. Janet—Le Spinozisme en France. B. Perez—Les facultés de l'enfant à l'époque de la naissance. D. Nolen—Le monisme en Allemagne (fin). Variétés (C. S.—Les sept énigmes du monde, d'après du Bois-Reymond). Analyses et Comptes-rendus (A. C. Fraser, *Berkeley*, &c.). Rev. des Périod. No. 3. M. Vernes—Les étapes de l'idée religieuse dans l'humanité, d'après un nouveau livre de Hartmann. Ch. Lévêque—L'esthetique &c.: ii. Psychologie des instruments. Ch. Secrétan—Du principle de la morale (ii.). Analyses et Comptes-rendus (F. Pollock, *Spinoza*, &c.). Rev. des Périod.

LA CRITIQUE PHILOSOPHIQUE.—Xme Année. Nos. 44-52. C. Renouvier—Politique et socialisme: xiii. La question du progrès; L'évolution sentimentale de Saint-Simon (45); Notes en réponse à M. Sh. Hodgson (46, 48, 49, 50—Mr. Hodgson's article on M. Renouvier's Psychology in MIND XXII. being reproduced by sections in the Nos.). W. James—Action réflexe et théisme (51, 52).

LA FILOSOFIA DELLE SCUOLE ITALIANE.—Vol. XXIV. Disp. 3. B. Labanca—Il problema della filosofia cristiana (i.). G. Fontana—Le basi della morale di H. Spencer. L. Ferri—Petrarca e il suo influsso sul pensiero del rinascimento. Bibliografia, &c. Vol. XXV. Disp. 1. B. Labanca—Il problema &c. (ii.). T. Mamiani—Del massimo problema in psicologia. A. Martinazzoli—Dell' insegnamento della filosofia nei licei. J. C. Doni—T. Mamiani e la questione dei proletarj. A. Chiappelli—Il dubbio di Socrate sulla immortalità. Bibliografia.

Rivista della Filosofia Scientifica.—An. I. No. 3. G. Trezza—L'Apocalisse Messianica. T. Vignoli—Del concetto di "legge" nella natura. A. Herzen—Il mondo organico secondo il concetto monistico. G. Canestrini—L'indirizzo della odierna biologia. G. Seppilli—Le basi fisiche delle funzioni mentali: i. La struttura della corteccia del cervello. Rivista Sintetica (E. Morselli, L'avvenire della potenza umana della natura). &c. No. 4. H. Spencer—Le aziende governative locali. P. Siciliani—Dottrine e metodi intorno alla storia della scienze e della filosofia. G. Buccola—La riproduzione delle percezioni di movimento nello spazio visivo, ricerche di psicologia sperimentale. L. Maggi—Le idee dell' Haeckel intorno alla morfologia dell' anima. Rivist. Sint. (E. Morselli—Un carattero atavico dell' evoluzione umana). &c.

Zeitschrift für Philosophie, &c.—Bd. LXXX. Heft 1. Th. Weber—Zur Kritik der Kantischen Erkenntnisstheorie (ii.). H. Hoeppe—Untersuchung der Frage ob Plato einen zeitlichen Anfang der Welt angenommen hat. J. Rau—Ueber das Prinzip des Schönen in der Betrachtung der Natur. Rabus—Logische Differenzen. H. Ulrici—Erläuternde u. berichtigende Bemerkungen zu dem vorstehenden Aufsatze Recensionen. Notizen. Bibliographie.

Philosophische Monatshefte.—Bd. XVIII. Hefte 1, 2. H. von Struve—Zur Psychologie der Sittlichkeit. Recensionen (H. Spencer, *The Data of Ethics*, &c.). Bibliographie. &c. Heft 3. J. Kreyenbühl—Die ethische Freiheit bei Kant. Recensionen u. Anzeigen. Literaturbericht, &c.

Zeitschrift für Völkerpsychologie u. Sprachwissenschaft.—Bd. XIII. Heft 4. G. Glogau—Empirismus u. Wissenschaftslehre. Beurtheilungen. F. Misteli—Berichtigungen Zum Aufsatze: Ueber Analogiebildungen insbesondere im Ugrischen.

Vierteljahrsschrift für wissenschaftliche Philosophie.—Bd. VI. Heft 1. Ths. Achelis—Lotze's Philosophie. B. Erdmann—Logische Studien (i.). Schmitz-Dumont—Die Kategorien der Begriffe u. das Congruenzaxiom (ii.). G. Heymans—Die Methode der Ethik (i.). A. Wernicke—Ueber Activität u. Passivität in ihrem Verhältniss zu Freiheit u. Nothwendigkeit. Anzeigen. Selbstanzeigen. &c.

Philosophische Studien (Herausgegeben von Wilhelm Wundt).—Bd. I. Heft 2. O. Staude—Der Begriff der Apperception in der neuern Psychologie. M. Trautscholdt—Experimentelle Untersuchungen über die Association der Vorstellungen. W. Wundt—Ueber die Messung psychischer Vorgänge. E. Koenig—Ueber den Substanzbegriff bei Locke u. Hume.

Other Books, &c., received:—*The Relation of Brain to Mind*, Glasgow (Maclehose), pp. 39. J. J. Murphy, *On the Addition and Multiplication of Logical Relatives* (Rep. from *Memoirs of Manch. Lit. and Phil. Soc.*, 1880-1), pp. 20. C. S. Pierce, *On the Logic of Number* (Rep. from *American Journal of Mathematics*, IV.), pp. 11. E. P. Scrimgour, *The Doctrine of the Cross*, London (Bell), pp. 183. Anonymous, *The Perfect Way, or, The Finding of Christ*, London (Field & Tuer), pp. 341. G. M. Beard, *Trance and Muscle Reading*, New York, pp. 40. Marquis de Seoane, *Philosophie Elliptique du Latent Opérant*, Francfort s. M. (Rommel), I. (1879), pp. 157, II. (1881), pp. 170. T. Mamiani, *Delle Questioni Sociali e particolarmente dei Proletarj e del Capitale*, Roma (Bocca), pp. 405. P. Strauch, *Margaretha Ebner u. Heinrich v. Nördlingen:* Ein Beitrag zur Geschichte der deutschen Mystik, Freiburg i. B. u. Tübingen (Mohr), pp. 414. Ch. Bäumler, *Der sogenannte animalische Magnetismus oder Hypnotismus*, Leipzig (Vogel), pp. 74. W. Wundt, *Die Aufgaben der experimentellen Psychologie* (Rep. from *Unsere Zeit*, 1882, iii.), pp. 20. C. Heymous, *E. von Hartmann, Erinnerungen aus den Jahren 1868-81*, Berlin (Duncker), pp. 64. P. H. Ritter, *De Monadenleer van Leibniz*, Leiden (Van Doesburgh), pp. 168.